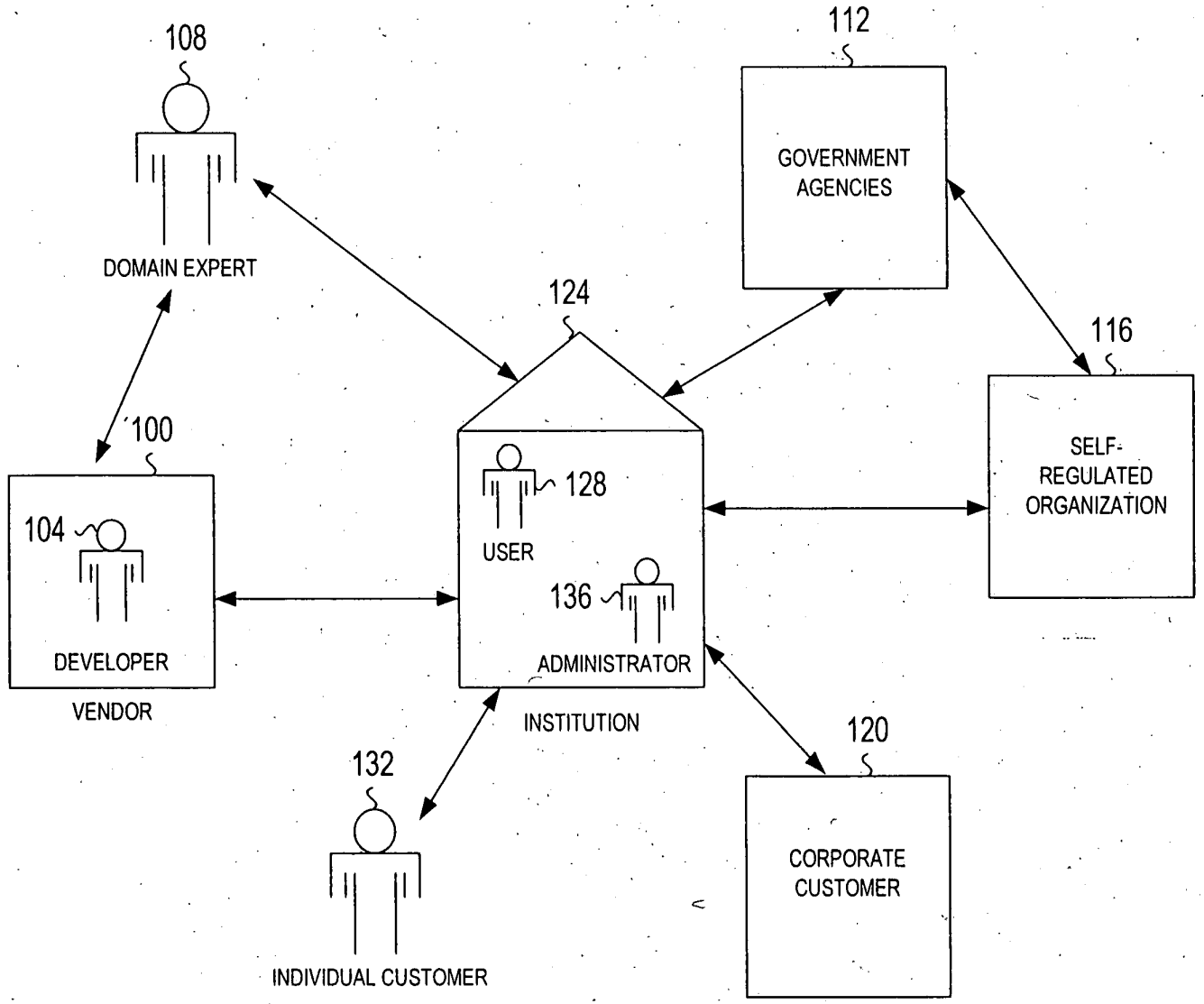

108
DOMAIN EXPERT
112
GOVERNMENT AGENCIES
124
116
100
104
DEVELOPER
VENDOR
128
USER
136
ADMINISTRATOR
INSTITUTION
SELF-REGULATED ORGANIZATION
132
INDIVIDUAL CUSTOMER
120
CORPORATE CUSTOMER

FIG. 1

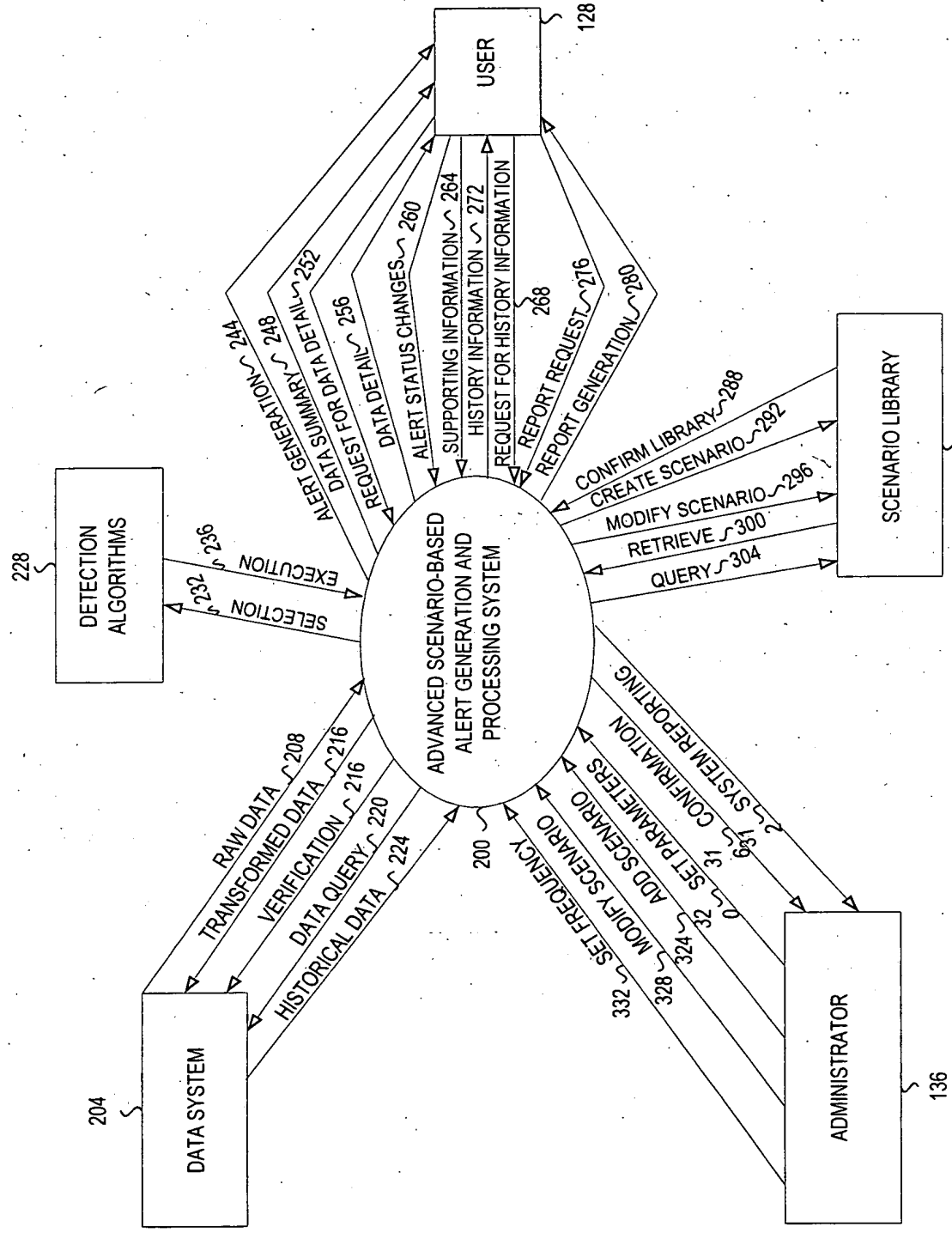

USER
128
ALERT GENERATION 244
DATA SUMMARY 248
DETAIL 252
REQUEST FOR DATA 256
DETAIL
DATA 260
ALERT STATUS CHANGES
SUPPORTING INFORMATION 264
HISTORY INFORMATION 272
REQUEST FOR HISTORY INFORMATION
268
REPORT REQUEST 276
REPORT GENERATION 280
CONFIRM LIBRARY 288
CREATE SCENARIO 292
MODIFY SCENARIO 296
RETRIEVE 300
QUERY 304
SCENARIO LIBRARY
284
DETECTION ALGORITHMS
228
EXECUTION 236
SELECTION 232
ADVANCED SCENARIO-BASED ALERT GENERATION AND PROCESSING SYSTEM
200
RAW DATA 208
TRANSFORMED DATA 216
VERIFICATION 216
DATA QUERY 220
HISTORICAL DATA 224
SYSTEM REPORTING 2
CONFIRMATION 631
SET PARAMETERS 31
ADD SCENARIO 0
MODIFY SCENARIO 32
SET FREQUENCY 324
328
332
DATA SYSTEM
204
ADMINISTRATOR
136

FIG. 2

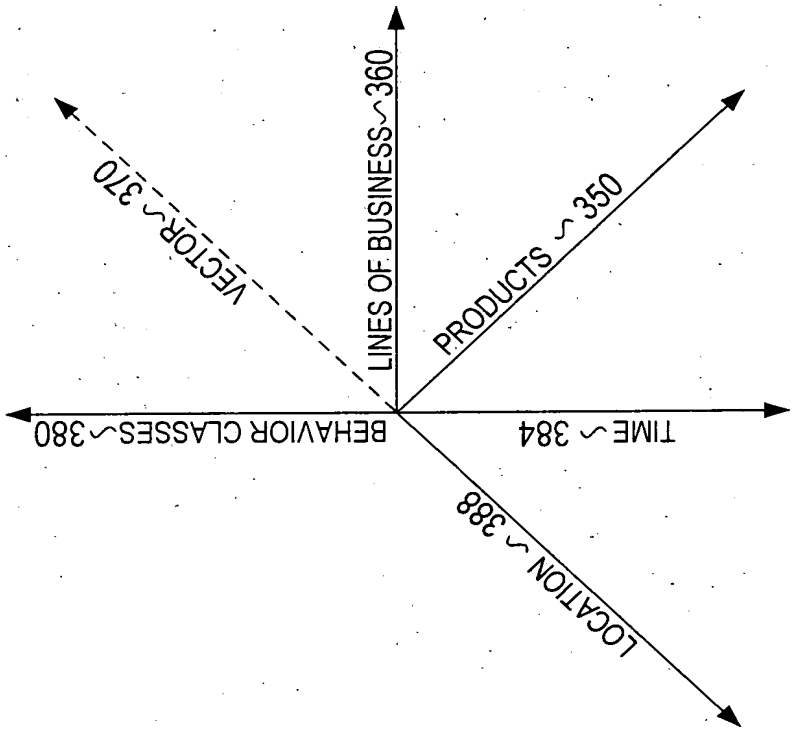

LINES OF BUSINESS 360
PRODUCTS 350
TIME 384
LOCATION 388
BEHAVIOR CLASSES 380
VECTOR 370

FIG. 3

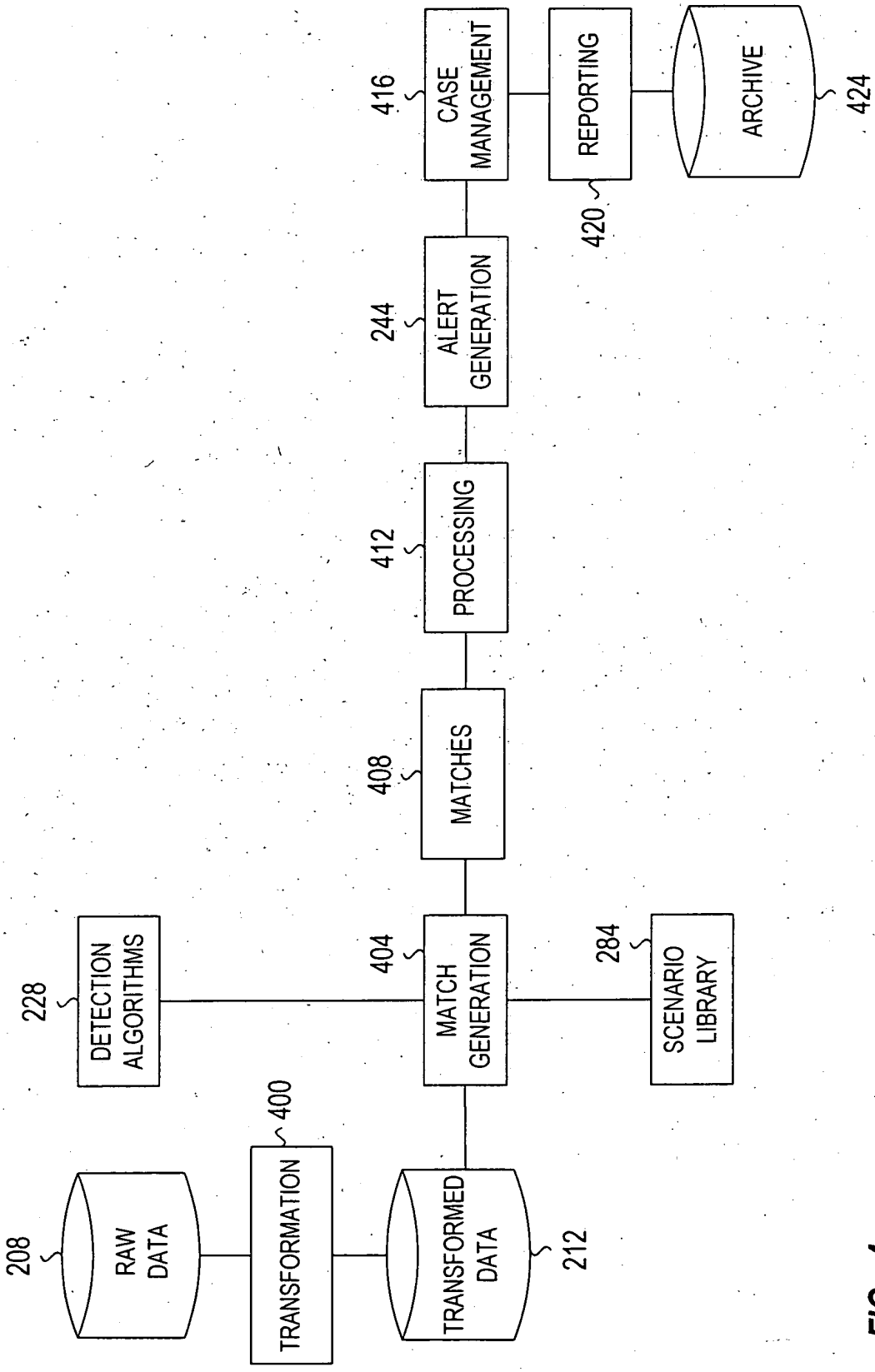

208
RAW DATA
400
TRANSFORMATION
TRANSFORMED DATA
212
228
DETECTION ALGORITHMS
404
MATCH GENERATION
284
SCENARIO LIBRARY
408
MATCHES
412
PROCESSING
244
ALERT GENERATION
416
CASE MANAGEMENT
420
REPORTING
424
ARCHIVE

FIG. 4

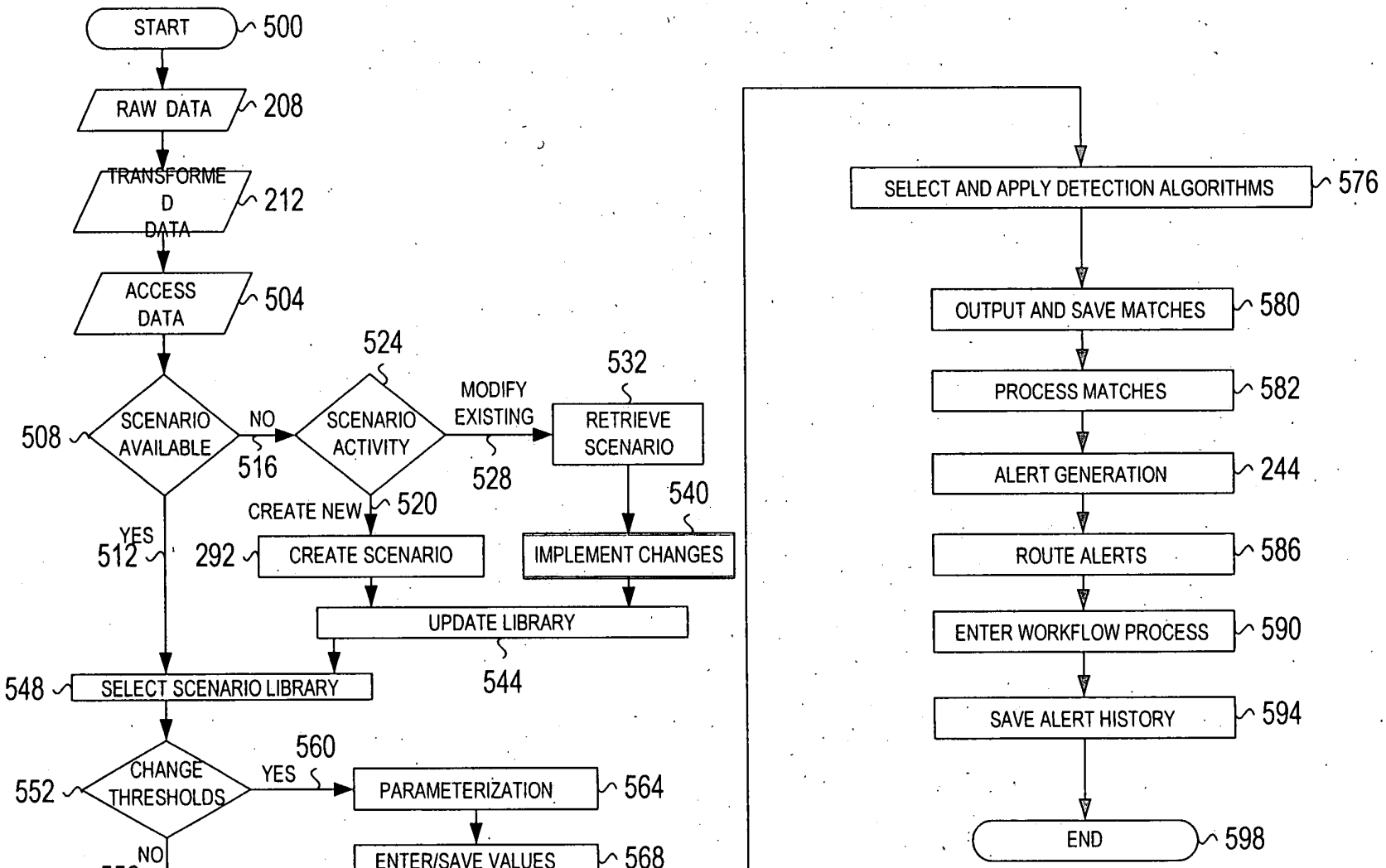

START
500
RAW DATA
208
TRANSFORMED DATA
212
ACCESS DATA
504
SCENARIO AVAILABLE
508
NO
516
SCENARIO ACTIVITY
524
MODIFY EXISTING
528
RETRIEVE SCENARIO
532
CREATE NEW
520
CREATE SCENARIO
292
IMPLEMENT CHANGES
540
YES
512
UPDATE LIBRARY
544
SELECT SCENARIO LIBRARY
548
CHANGE THRESHOLDS
552
YES
560
PARAMETERIZATION
564
NO
556
ENTER/SAVE VALUES
568
APPLY SCENARIO LIBRARY
572
SELECT AND APPLY DETECTION ALGORITHMS
576
OUTPUT AND SAVE MATCHES
580
PROCESS MATCHES
582
ALERT GENERATION
244
ROUTE ALERTS
586
ENTER WORKFLOW PROCESS
590
SAVE ALERT HISTORY
594
END
598

FIG. 5

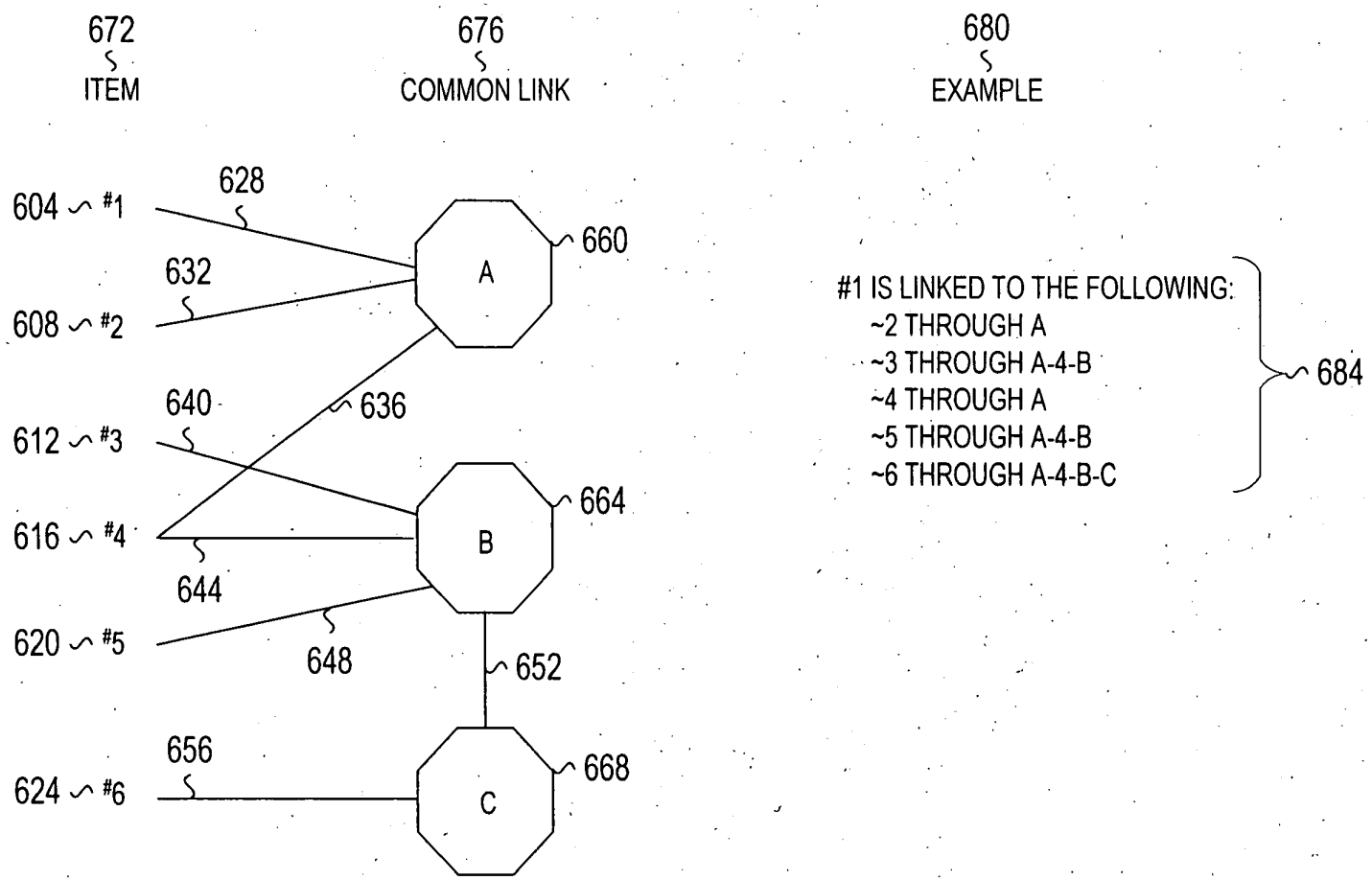

672
ITEM
676
COMMON LINK
680
EXAMPLE
604 #1
608 #2
612 #3
616 #4
620 #5
624 #6
628
632
636
640
644
648
652
656
660
664
668
A
B
C
#1 IS LINKED TO THE FOLLOWING:
~2 THROUGH A
~3 THROUGH A-4-B
~4 THROUGH A
~5 THROUGH A-4-B
~6 THROUGH A-4-B-C
684

FIG. 6

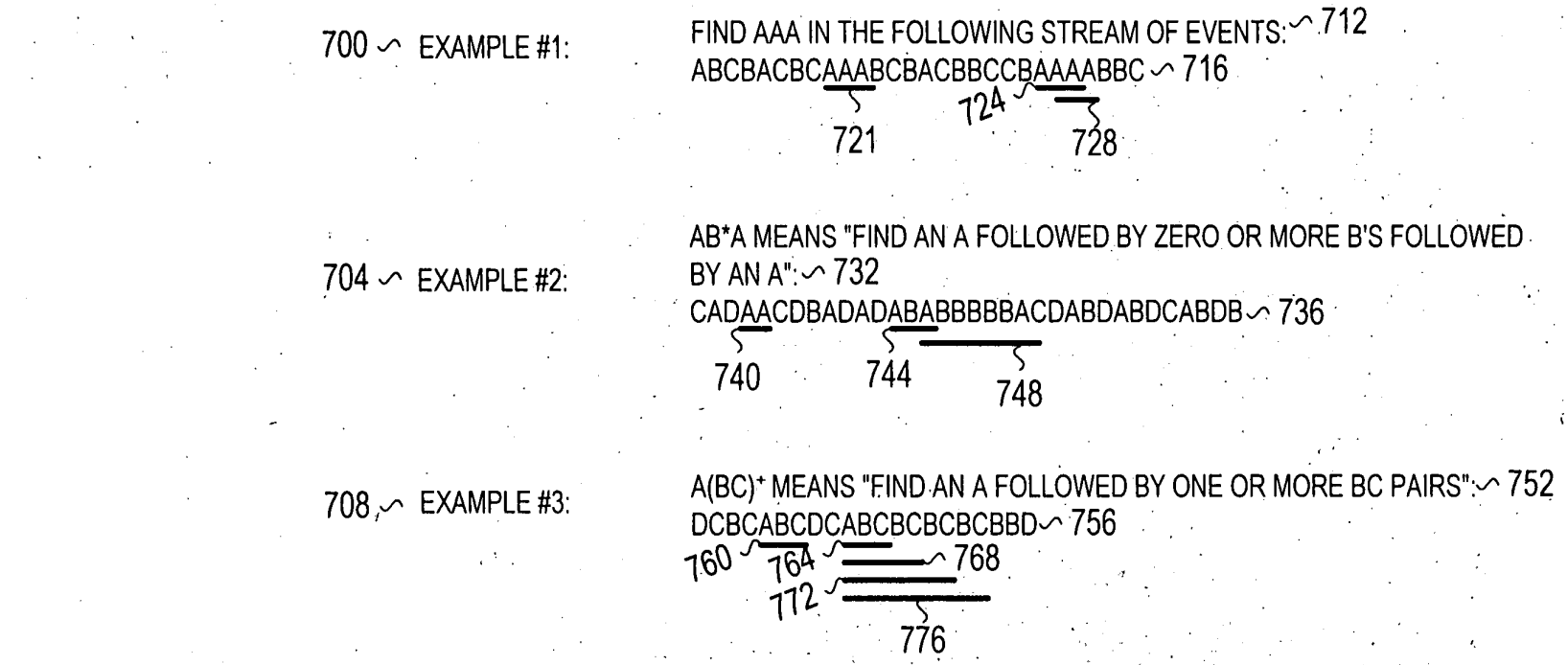

700 EXAMPLE #1:
FIND AAA IN THE FOLLOWING STREAM OF EVENTS: 712
ABCBACBCAAABCBACBBCCBAAAABBC 716
721
724
728
704 EXAMPLE #2:
AB*A MEANS "FIND AN A FOLLOWED BY ZERO OR MORE B'S FOLLOWED BY AN A": 732
CADAACDBADADABABBBBBACDABDABDCABDB 736
740
744
748
708 EXAMPLE #3:
A(BC)+ MEANS "FIND AN A FOLLOWED BY ONE OR MORE BC PAIRS": 752
DCBCABCDCABCBCBCBCBBD 756
760
764
768
772
776

FIG. 7

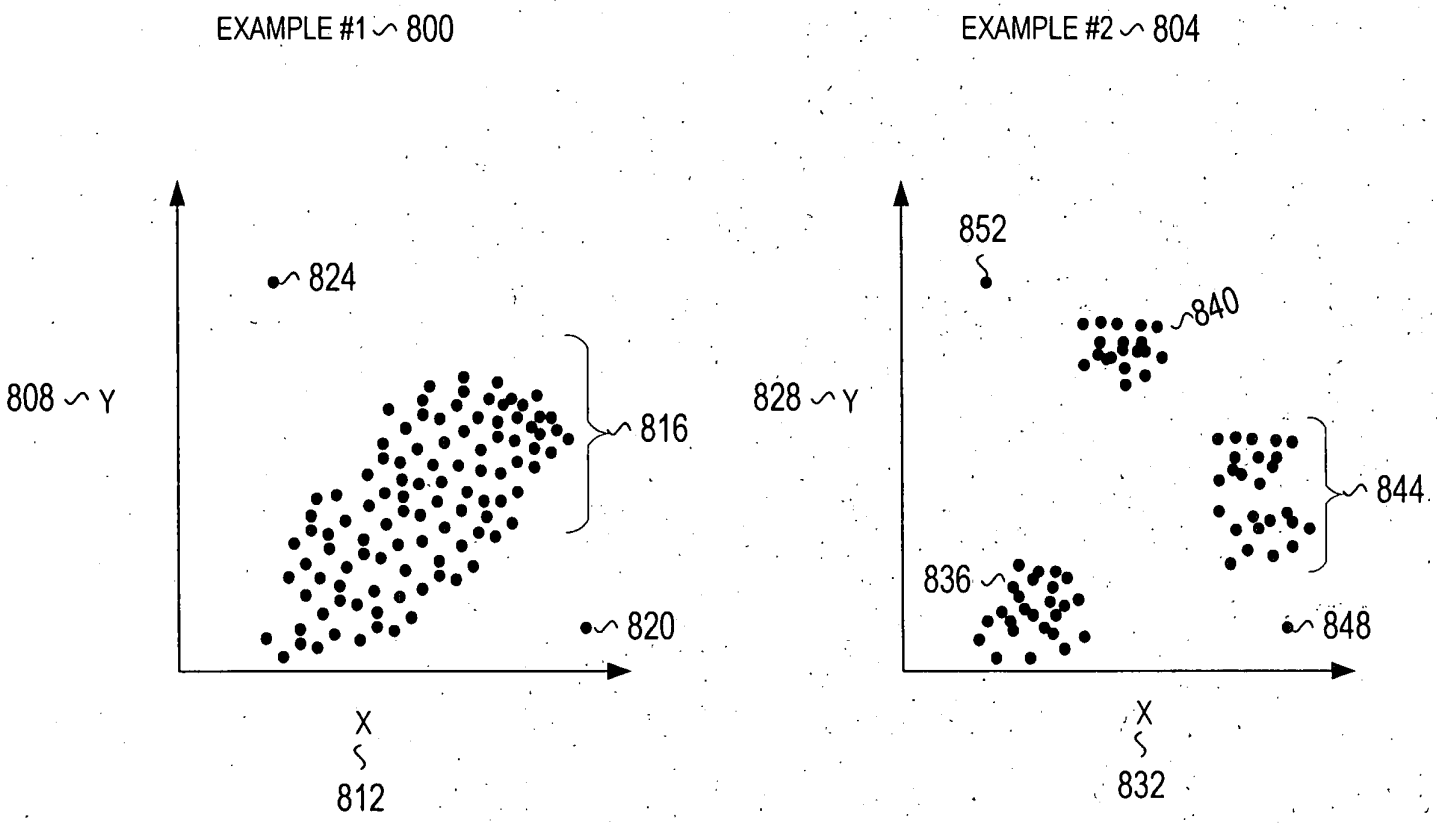

EXAMPLE #1 800
824
808 Y
816
820
X
812
EXAMPLE #2 804
852
840
828 Y
844
836
848
X
832

FIG. 8

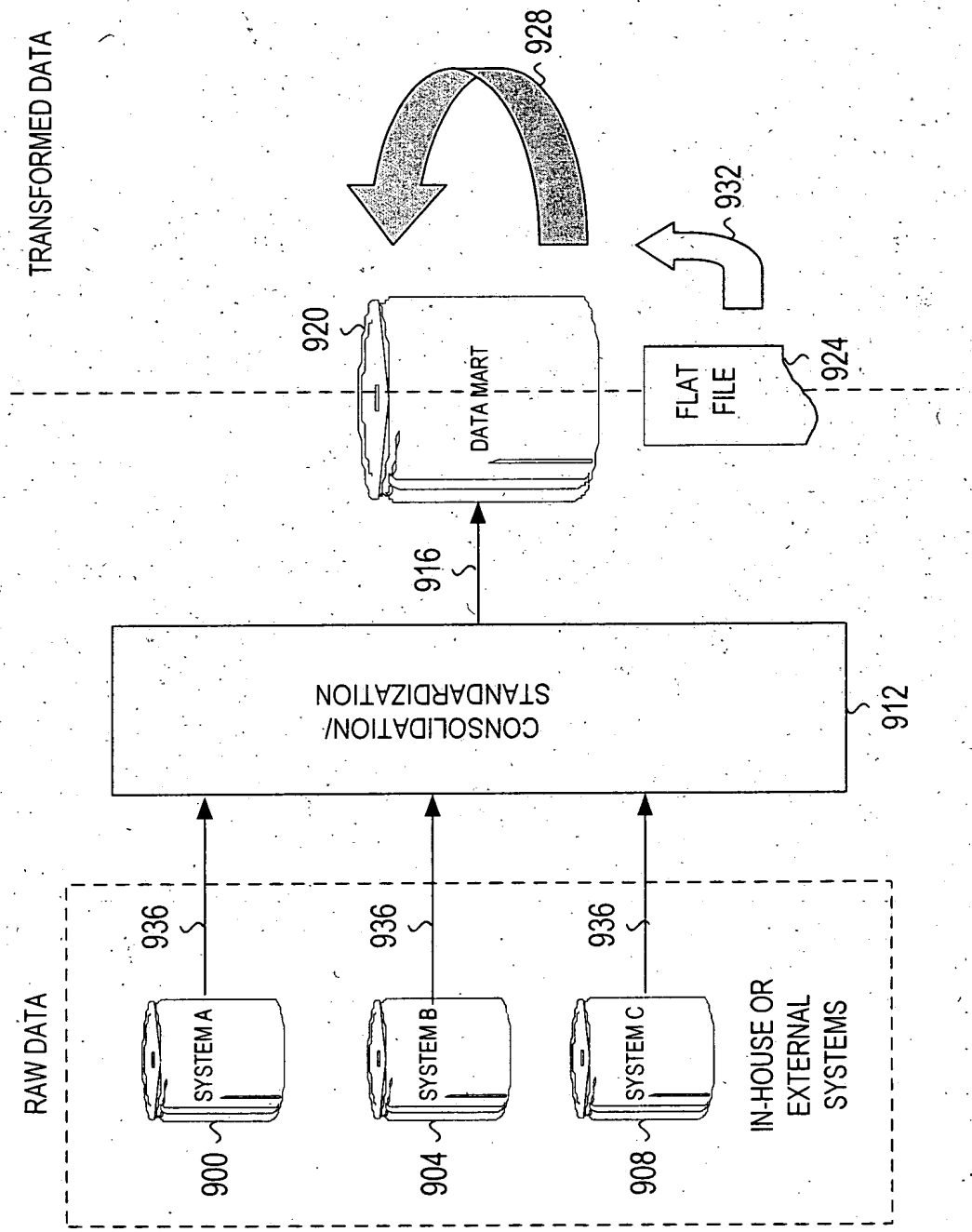

TRANSFORMED DATA
928
932
920
DATA MART
FLAT FILE
924
916
CONSOLIDATION/ STANDARDIZATION
912
RAW DATA
936
936
936
SYSTEM A
SYSTEM B
SYSTEM C
900
904
908
IN-HOUSE OR EXTERNAL SYSTEMS

FIG. 9A

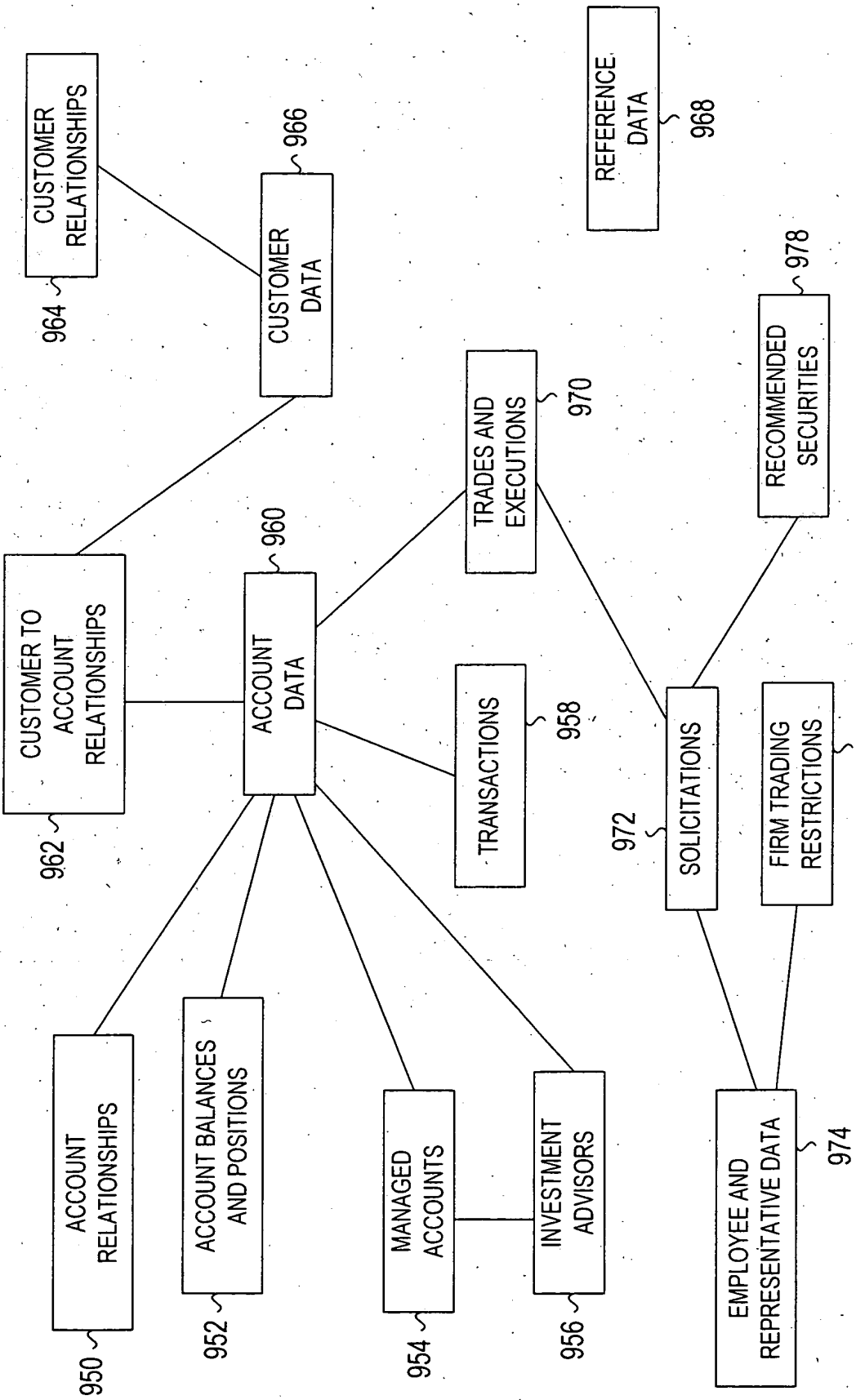

CUSTOMER RELATIONSHIPS
964
CUSTOMER DATA
966
REFERENCE DATA
968
CUSTOMER TO ACCOUNT RELATIONSHIPS
962
ACCOUNT DATA
960
TRADES AND EXECUTIONS
970
RECOMMENDED SECURITIES
978
TRANSACTIONS
958
SOLICITATIONS
972
FIRM TRADING RESTRICTIONS
976
ACCOUNT RELATIONSHIPS
950
ACCOUNT BALANCES AND POSITIONS
952
MANAGED ACCOUNTS
954
INVESTMENT ADVISORS
956
EMPLOYEE AND REPRESENTATIVE DATA
974

FIG. 9B

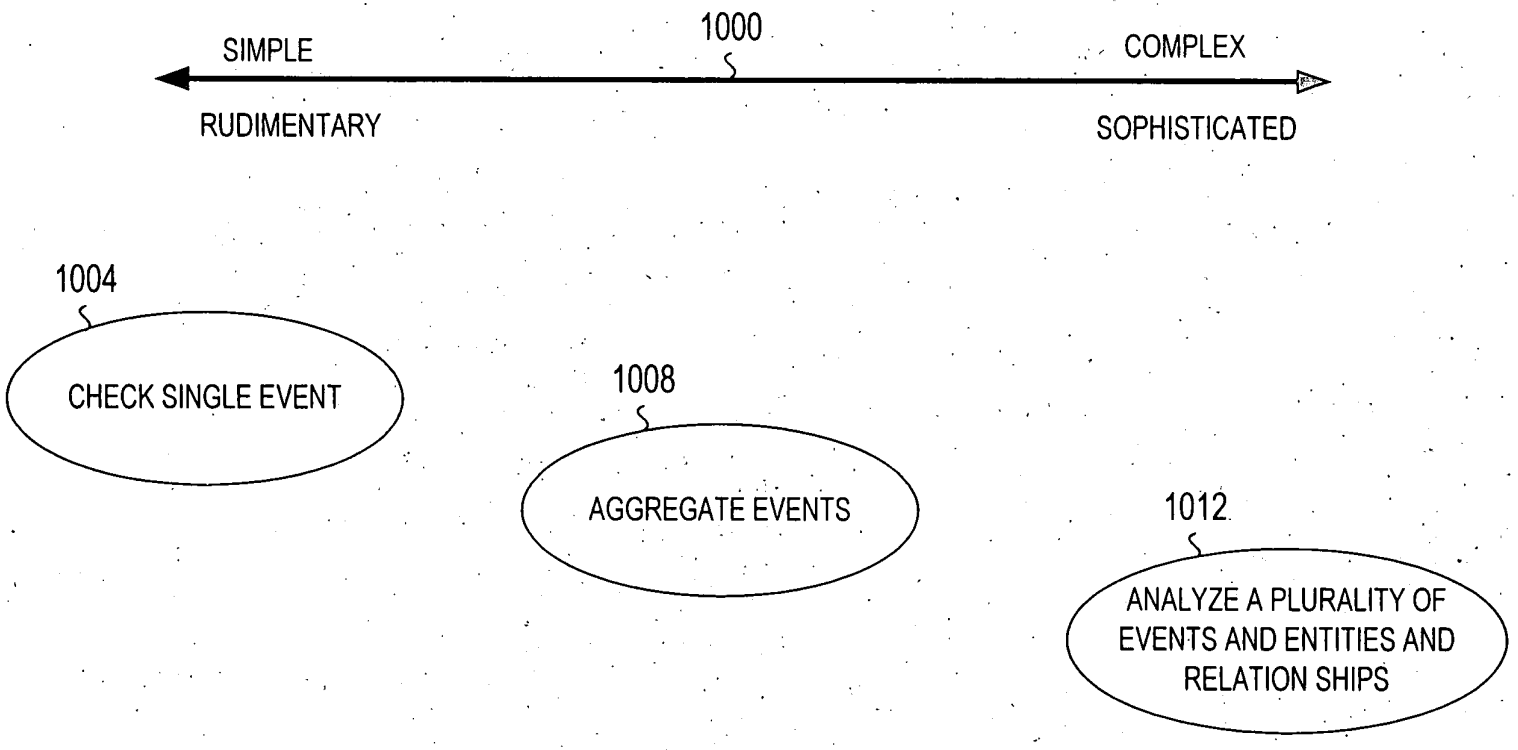

1000
SIMPLE
COMPLEX
RUDIMENTARY
SOPHISTICATED
1004
CHECK SINGLE EVENT
1008
AGGREGATE EVENTS
1012
ANALYZE A PLURALITY OF EVENTS AND ENTITIES AND RELATION SHIPS

FIG. 10

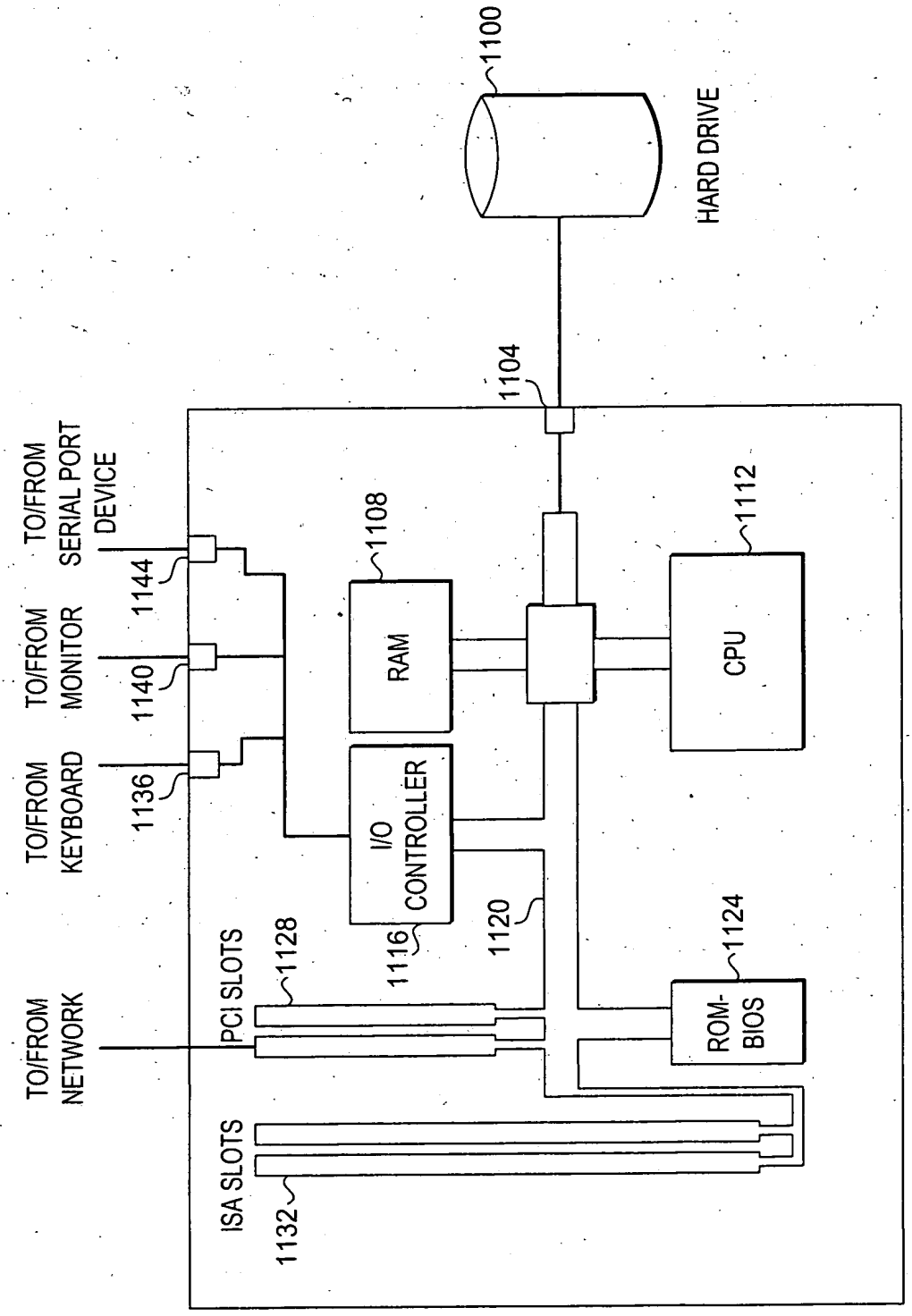

1100
HARD DRIVE
1104
TO/FROM SERIAL PORT DEVICE
1144
TO/FROM MONITOR
1140
TO/FROM KEYBOARD
1136
TO/FROM NETWORK
1108
RAM
1112
CPU
I/O CONTROLLER
1116
1120
1124
ROM-BIOS
PCI SLOTS
1128
ISA SLOTS
1132

FIG. 11

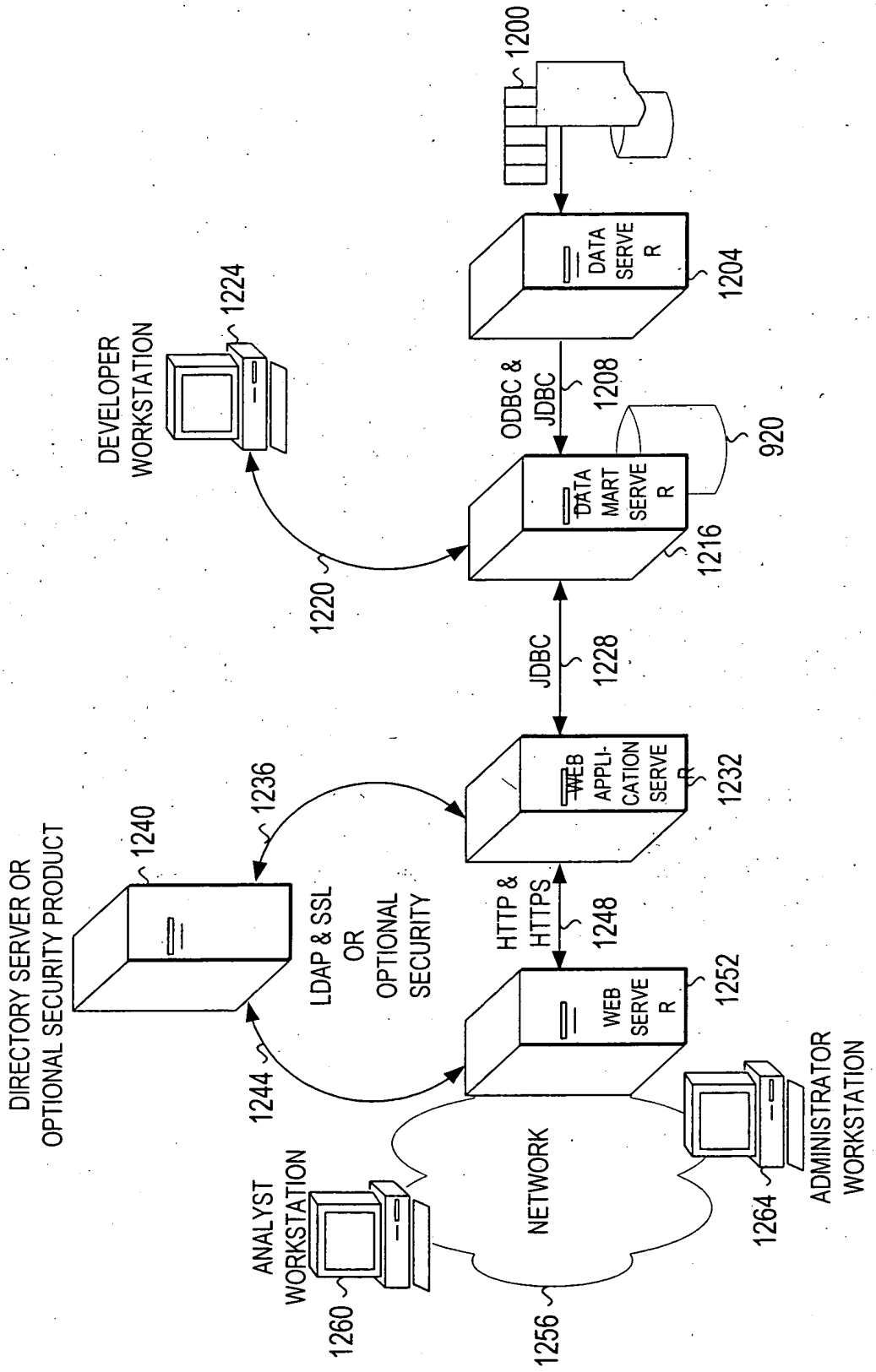

1200
DATA SERVER
1204
ODBC & JDBC
1208
DEVELOPER WORKSTATION
1224
DATA MART SERVER
920
1216
1220
JDBC
1228
WEB APPLI-CATION SERVER
1232
1236
DIRECTORY SERVER OR OPTIONAL SECURITY PRODUCT
1240
LDAP & SSL OR OPTIONAL SECURITY
HTTP & HTTPS
1248
WEB SERVER
1252
1244
ANALYST WORKSTATION
1260
NETWORK
1256
1264
ADMINISTRATOR WORKSTATION

FIG. 12

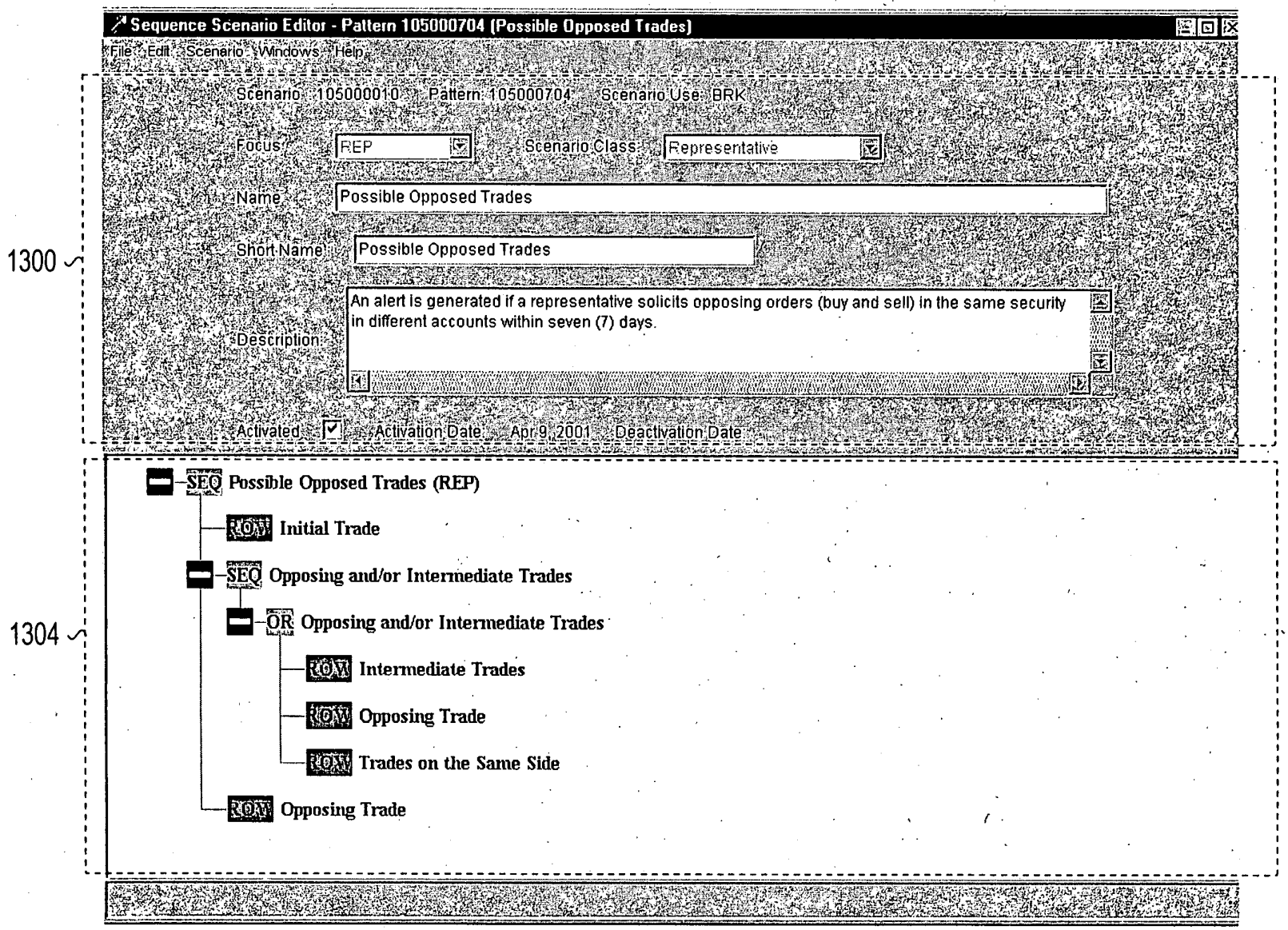

Sequence Scenario Editor - Pattern 105000704 (Possible Opposed Trades)
File Edit Scenario Windows Help
Scenario 105000010 Pattern 105000704 Scenario Use: BRK
Focus REP
Scenario Class Representative
Name Possible Opposed Trades
Short Name Possible Opposed Trades
Description An alert is generated if a representative solicits opposing orders (buy and sell) in the same security in different accounts within seven (7) days.
Activated
Activation Date Apr 9, 2001
Deactivation Date
1300
1304
SEQ Possible Opposed Trades (REP)
ROW Initial Trade
SEQ Opposing and/or Intermediate Trades
OR Opposing and/or Intermediate Trades
ROW Intermediate Trades
ROW Opposing Trade
ROW Trades on the Same Side
ROW Opposing Trade

FIG. 13

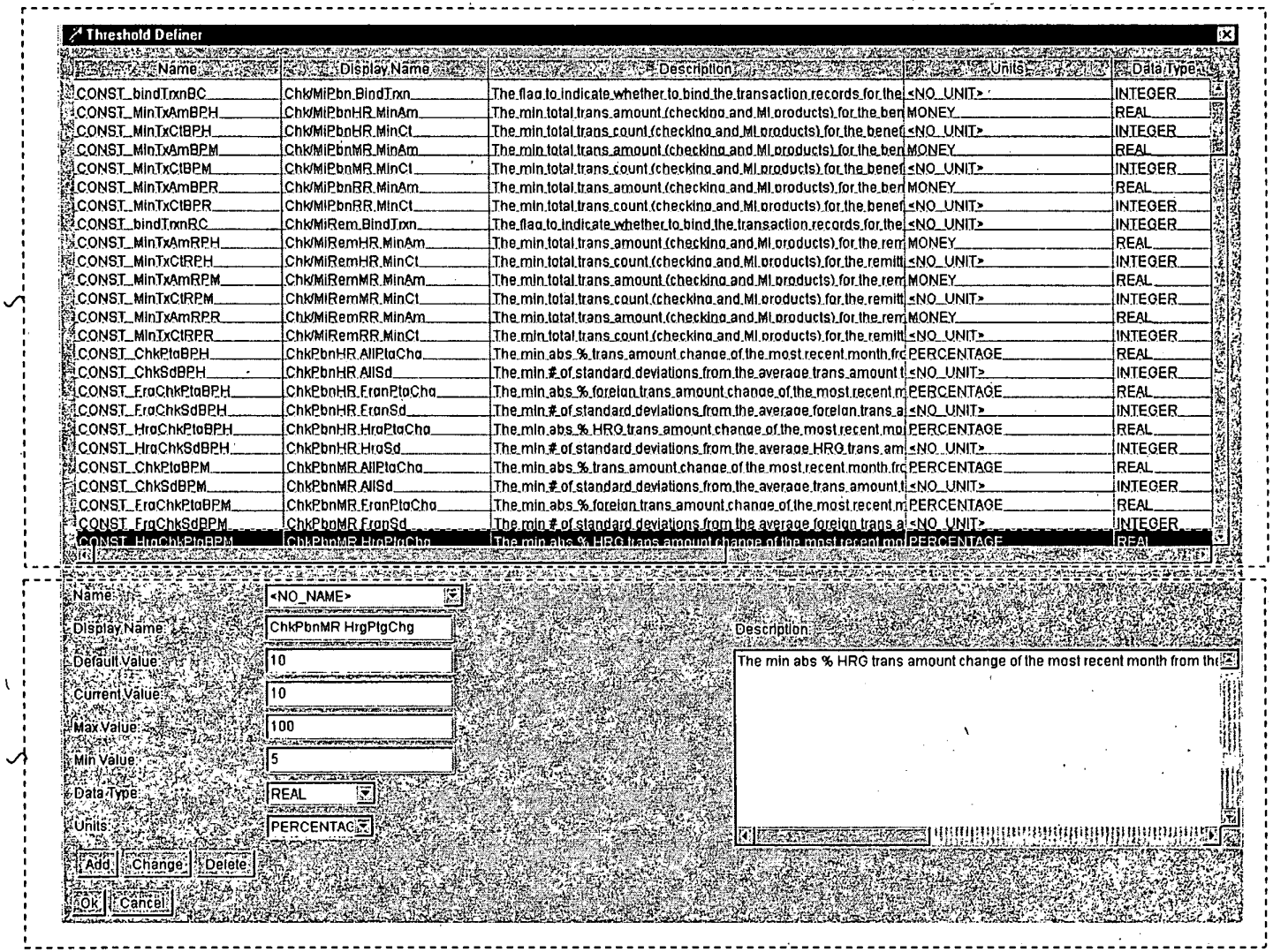

Threshold Definer
Name
Display Name
Description
Units
Data Type
CONST_bindTrxnBC
Chk/MiPbn BindTrxn
The flag to indicate whether to bind the transaction records for the
<NO_UNIT>
INTEGER
CONST_MinTxAmBPH
Chk/MiPbnHR MinAm
The min total trans amount (checking and MI products) for the ben
MONEY
REAL
CONST_MinTxCtBPH
Chk/MiPbnHR MinCt
The min total trans count (checking and MI products) for the benef
<NO_UNIT>
INTEGER
CONST_MinTxAmBPM
Chk/MiPbnMR MinAm
The min total trans amount (checking and MI products) for the ben
MONEY
REAL
CONST_MinTxCtBPM
Chk/MiPbnMR MinCt
The min total trans count (checking and MI products) for the benef
<NO_UNIT>
INTEGER
CONST_MinTxAmBPR
Chk/MiPbnRR MinAm
The min total trans amount (checking and MI products) for the ben
MONEY
REAL
CONST_MinTxCtBPR
Chk/MiPbnRR MinCt
The min total trans count (checking and MI products) for the benef
<NO_UNIT>
INTEGER
CONST_bindTrxnRC
Chk/MiRem BindTrxn
The flag to indicate whether to bind the transaction records for the
<NO_UNIT>
INTEGER
CONST_MinTxAmRPH
Chk/MiRemHR MinAm
The min total trans amount (checking and MI products) for the rem
MONEY
REAL
CONST_MinTxCtRPH
Chk/MiRemHR MinCt
The min total trans count (checking and MI products) for the remitt
<NO_UNIT>
INTEGER
CONST_MinTxAmRPM
Chk/MiRemMR MinAm
The min total trans amount (checking and MI products) for the rem
MONEY
REAL
CONST_MinTxCtRPM
Chk/MiRemMR MinCt
The min total trans count (checking and MI products) for the remitt
<NO_UNIT>
INTEGER
CONST_MinTxAmRPR
Chk/MiRemRR MinAm
The min total trans amount (checking and MI products) for the rem
MONEY
REAL
CONST_MinTxCtRPR
Chk/MiRemRR MinCt
The min total trans count (checking and MI products) for the remitt
<NO_UNIT>
INTEGER
CONST_ChkPtaBPH
ChkPbnHR AllPtaChg
The min abs % trans amount change of the most recent month fro
PERCENTAGE
REAL
CONST_ChkSdBPH
ChkPbnHR AllSd
The min # of standard deviations from the average trans amount t
<NO_UNIT>
INTEGER
CONST_FraChkPtaBPH
ChkPbnHR FranPtaChg
The min abs % foreign trans amount change of the most recent m
PERCENTAGE
REAL
CONST_FraChkSdBPH
ChkPbnHR FranSd
The min # of standard deviations from the average foreign trans a
<NO_UNIT>
INTEGER
CONST_HraChkPtaBPH
ChkPbnHR HraPtaChg
The min abs % HRG trans amount change of the most recent mo
PERCENTAGE
REAL
CONST_HraChkSdBPH
ChkPbnHR HraSd
The min # of standard deviations from the average HRG trans am
<NO_UNIT>
INTEGER
CONST_ChkPtaBPM
ChkPbnMR AllPtaChg
The min abs % trans amount change of the most recent month fro
PERCENTAGE
REAL
CONST_ChkSdBPM
ChkPbnMR AllSd
The min # of standard deviations from the average trans amount t
<NO_UNIT>
INTEGER
CONST_FraChkPtaBPM
ChkPbnMR FranPtaChg
The min abs % foreign trans amount change of the most recent m
PERCENTAGE
REAL
CONST_FraChkSdBPM
ChkPbnMR FranSd
The min # of standard deviations from the average foreign trans a
<NO_UNIT>
INTEGER
CONST_HraChkPtaBPM
ChkPbnMR HraPtaChg
The min abs % HRG trans amount change of the most recent mo
PERCENTAGE
REAL
Name:
<NO_NAME>
Display Name:
ChkPbnMR HrgPtgChg
Default Value:
10
Current Value:
10
Max Value:
100
Min Value:
5
Data Type:
REAL
Units:
PERCENTAG
Description:
The min abs % HRG trans amount change of the most recent month from th
Add
Change
Delete
Ok
Cancel
1400
1404

FIG. 14

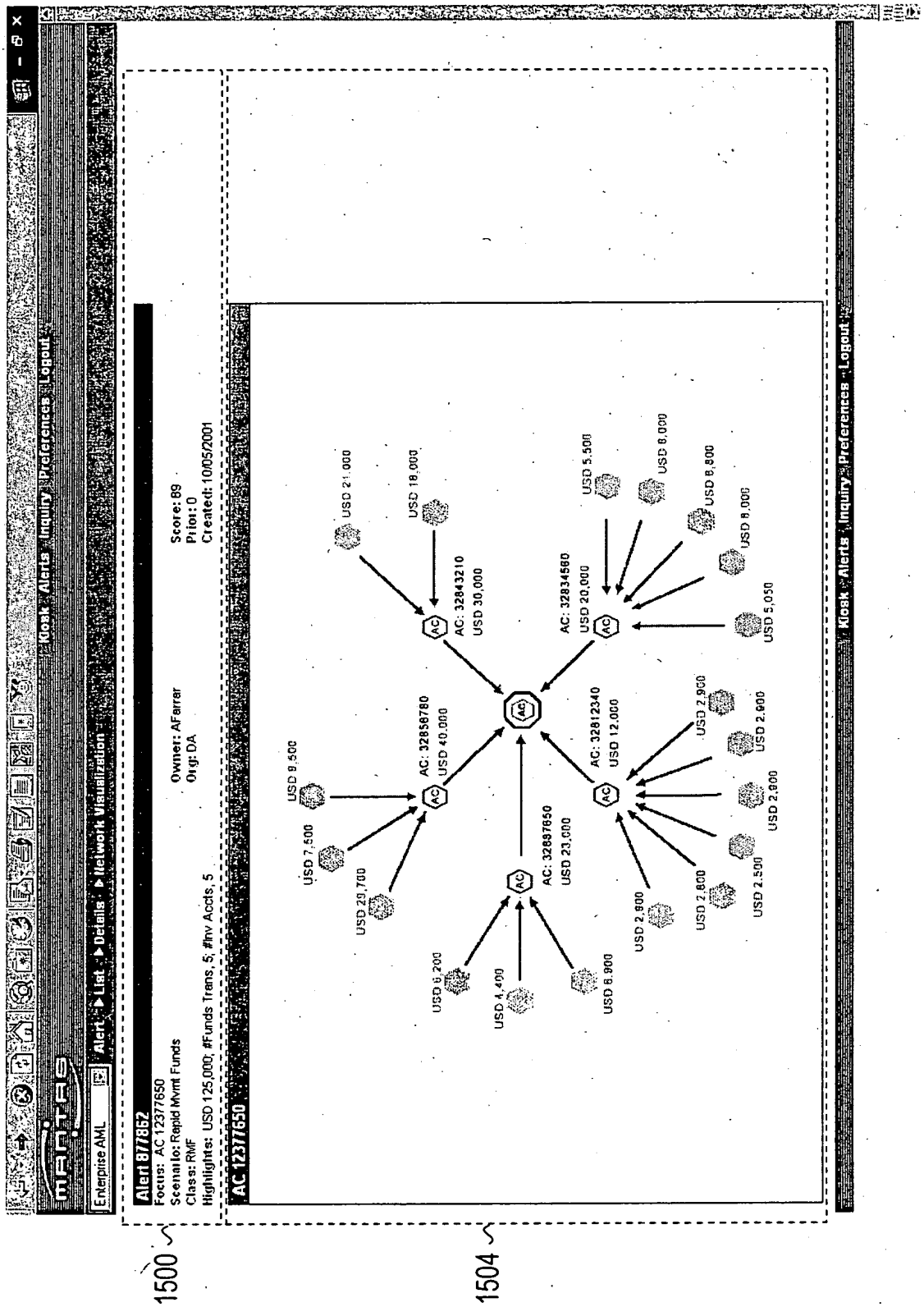
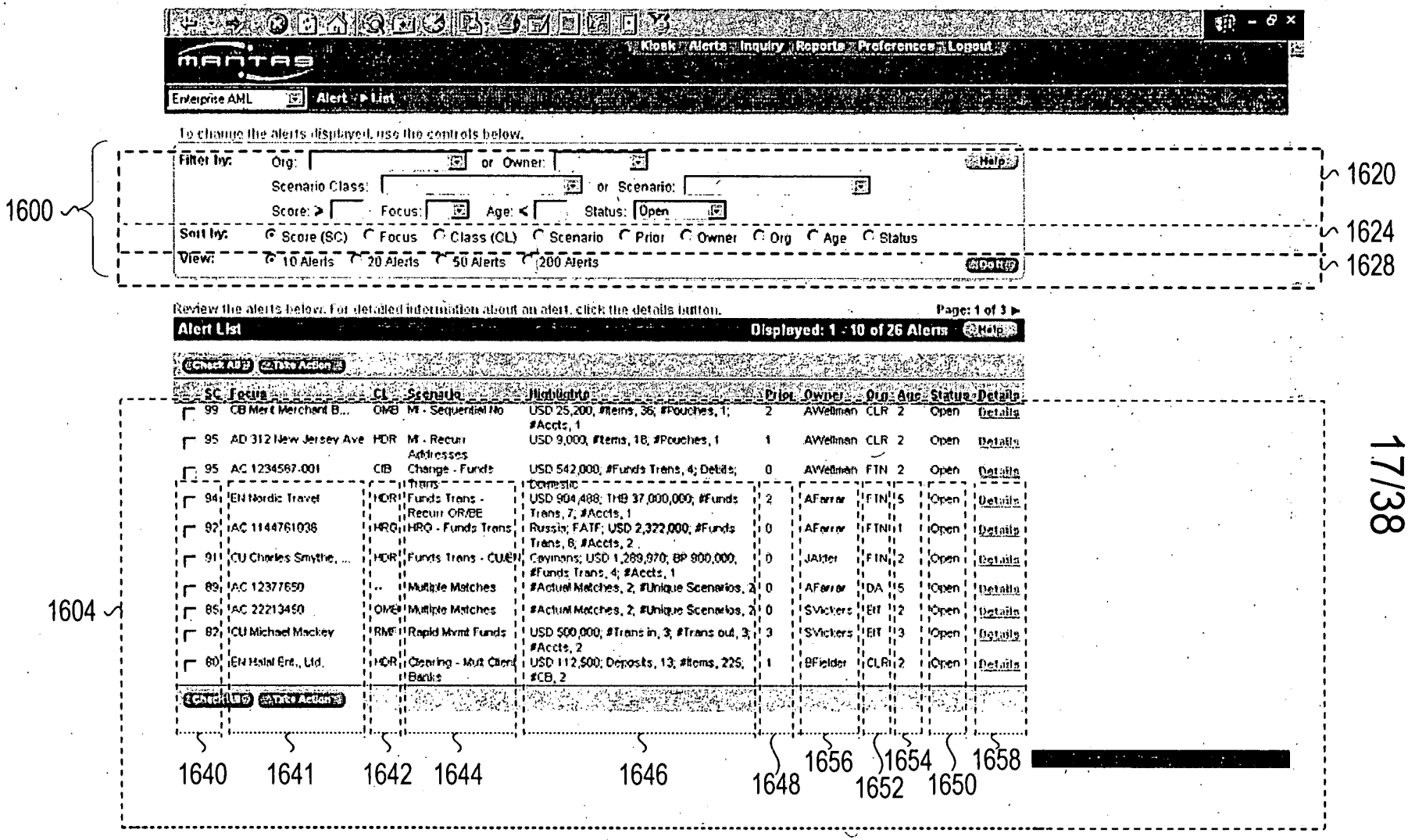

1500
1504
Kiosk | Alerts | Inquiry | Preferences | Logout
Enterprise AML
Alert ▶ List ▶ Details ▶ Network Visualization
Alert 877862
Focus: AC 12377650
Scenario: Rapid Mvmt Funds
Class: RMF
Highlights: USD 125,000; #Funds Trans, 5; #Inv Accts, 5
Owner: AFarrar
Org: DA
Score: 89
Prior: 0
Created: 10/05/2001
AC 12377650
AC: 32858780
USD 40,000
AC: 32887650
USD 23,000
AC: 32812340
USD 12,000
AC: 32843210
USD 30,000
AC: 32834560
USD 20,000
USD 9,500
USD 7,500
USD 29,700
USD 6,200
USD 4,400
USD 8,900
USD 21,000
USD 18,000
USD 5,500
USD 8,000
USD 8,800
USD 8,000
USD 5,050
USD 2,900
USD 2,900
USD 2,900
USD 2,800
USD 2,800
USD 2,500

FIG. 15


Kiosk Alerts Inquiry Reports Preferences Logout
Enterprise AML
Alert : ▸ List
To change the alerts displayed, use the controls below.
Filter by: Org: or Owner: Help
Scenario Class: or Scenario:
Score: ≥ Focus: Age: ≤ Status: Open
Sort by: Score (SC) Focus Class (CL) Scenario Prior Owner Org Age Status
View: 10 Alerts 20 Alerts 50 Alerts 200 Alerts Do It!
Review the alerts below. For detailed information about an alert, click the details button.
Page: 1 of 3 ▸
Alert List
Displayed: 1 - 10 of 26 Alerts Help
Check All Take Action
SC Focus CL Scenario Highlights Prior Owner Org Age Status Details
99 CB Mert Merchant B... OMB M - Sequential No USD 25,200; #Items, 36; #Pouches, 1; #Accts, 1 2 AWellman CLR 2 Open Details
95 AD 312 New Jersey Ave HDR M - Recur Addresses USD 9,000; #Items, 18; #Pouches, 1 1 AWellman CLR 2 Open Details
95 AC 1234567-001 CIB Change - Funds Trans USD 542,000; #Funds Trans, 4; Debits; Domestic 0 AWellman FTN 2 Open Details
94 EN Nordic Travel HDR Funds Trans - Recur OR/BE USD 904,488; THB 37,000,000; #Funds Trans, 7; #Accts, 1 2 AFerrer FTN 5 Open Details
92 AC 1144761036 HRQ HRQ - Funds Trans Russia; FATF; USD 2,322,000; #Funds Trans, 6; #Accts, 2 0 AFerrer FTN 1 Open Details
91 CU Charles Smythe, ... HDR Funds Trans - CU/EN Caymans; USD 1,289,970; BP 900,000; #Funds Trans, 4; #Accts, 1 0 JAlter FTN 2 Open Details
89 AC 12377650 -- Multiple Matches #Actual Matches, 2; #Unique Scenarios, 2 0 AFerrer DA 5 Open Details
85 AC 22213450 OMB Multiple Matches #Actual Matches, 2; #Unique Scenarios, 2 0 SVickers EII 2 Open Details
82 CU Michael Mackey RMF Rapid Mvmt Funds USD 500,000; #Trans in, 3; #Trans out, 3; #Accts, 2 3 SVickers EII 3 Open Details
80 EN Halal Ent., Ltd. HDR Clearing - Mult Client Banks USD 112,500; Deposits, 13; #Items, 225; #CB, 2 1 BFielder CLR 2 Open Details
Check All Take Action
1600
1604
1620
1624
1628
1640
1641
1642
1644
1646
1648
1656
1652
1654
1650
1658

17/38

FIG. 16

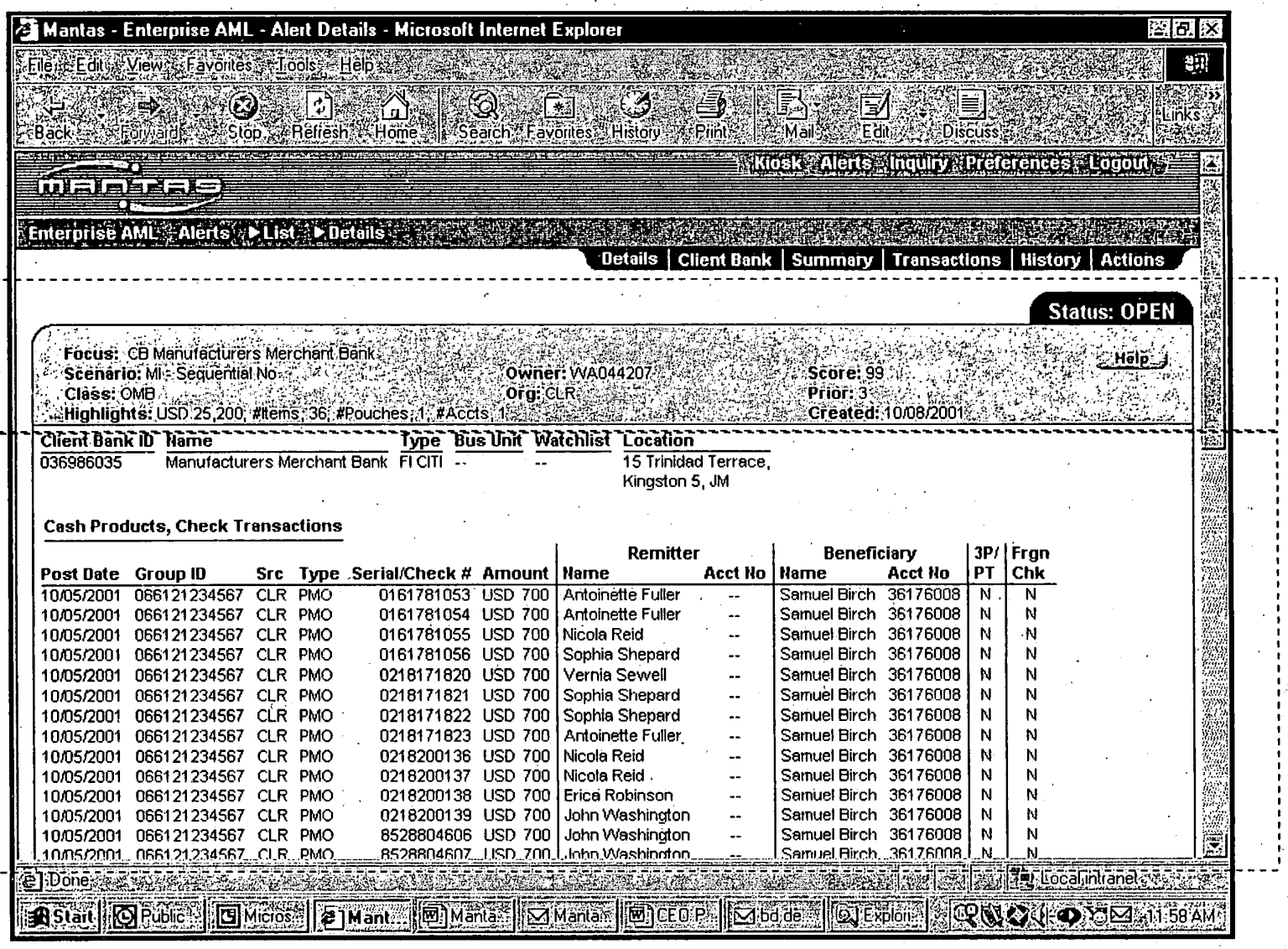

Mantas - Enterprise AML - Alert Details - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Forward Stop Refresh Home Search Favorites History Print Mail Edit Discuss Links
MANTAS
Kiosk Alerts Inquiry Preferences Logout
Enterprise AML Alerts List Details
Details Client Bank Summary Transactions History Actions
Status: OPEN
1700
Focus: CB Manufacturers Merchant Bank
Scenario: MI - Sequential No
Class: OMB
Owner: WA044207
Org: CLR
Score: 99
Prior: 3
Created: 10/08/2001
Highlights: USD 25,200; #Items: 36; #Pouches: 1; #Accts: 1
Help
Client Bank ID Name Type Bus Unit Watchlist Location
036986035 Manufacturers Merchant Bank FI CITI -- -- 15 Trinidad Terrace, Kingston 5, JM
Cash Products, Check Transactions
1704
Post Date Group ID Src Type Serial/Check # Amount Remitter Name Remitter Acct No Beneficiary Name Beneficiary Acct No 3P/PT Frgn Chk
10/05/2001 066121234567 CLR PMO 0161781053 USD 700 Antoinette Fuller -- Samuel Birch 36176008 N N
10/05/2001 066121234567 CLR PMO 0161781054 USD 700 Antoinette Fuller -- Samuel Birch 36176008 N N
10/05/2001 066121234567 CLR PMO 0161781055 USD 700 Nicola Reid -- Samuel Birch 36176008 N N
10/05/2001 066121234567 CLR PMO 0161781056 USD 700 Sophia Shepard -- Samuel Birch 36176008 N N
10/05/2001 066121234567 CLR PMO 0218171820 USD 700 Vernia Sewell -- Samuel Birch 36176008 N N
10/05/2001 066121234567 CLR PMO 0218171821 USD 700 Sophia Shepard -- Samuel Birch 36176008 N N
10/05/2001 066121234567 CLR PMO 0218171822 USD 700 Sophia Shepard -- Samuel Birch 36176008 N N
10/05/2001 066121234567 CLR PMO 0218171823 USD 700 Antoinette Fuller -- Samuel Birch 36176008 N N
10/05/2001 066121234567 CLR PMO 0218200136 USD 700 Nicola Reid -- Samuel Birch 36176008 N N
10/05/2001 066121234567 CLR PMO 0218200137 USD 700 Nicola Reid -- Samuel Birch 36176008 N N
10/05/2001 066121234567 CLR PMO 0218200138 USD 700 Erica Robinson -- Samuel Birch 36176008 N N
10/05/2001 066121234567 CLR PMO 0218200139 USD 700 John Washington -- Samuel Birch 36176008 N N
10/05/2001 066121234567 CLR PMO 8528804606 USD 700 John Washington -- Samuel Birch 36176008 N N
10/05/2001 066121234567 CLR PMO 8528804607 USD 700 John Washington -- Samuel Birch 36176008 N N
Done
Local intranet
Start Public Micros Mant Manta Manta CEO P bd de Explor 11:58 AM

FIG. 17

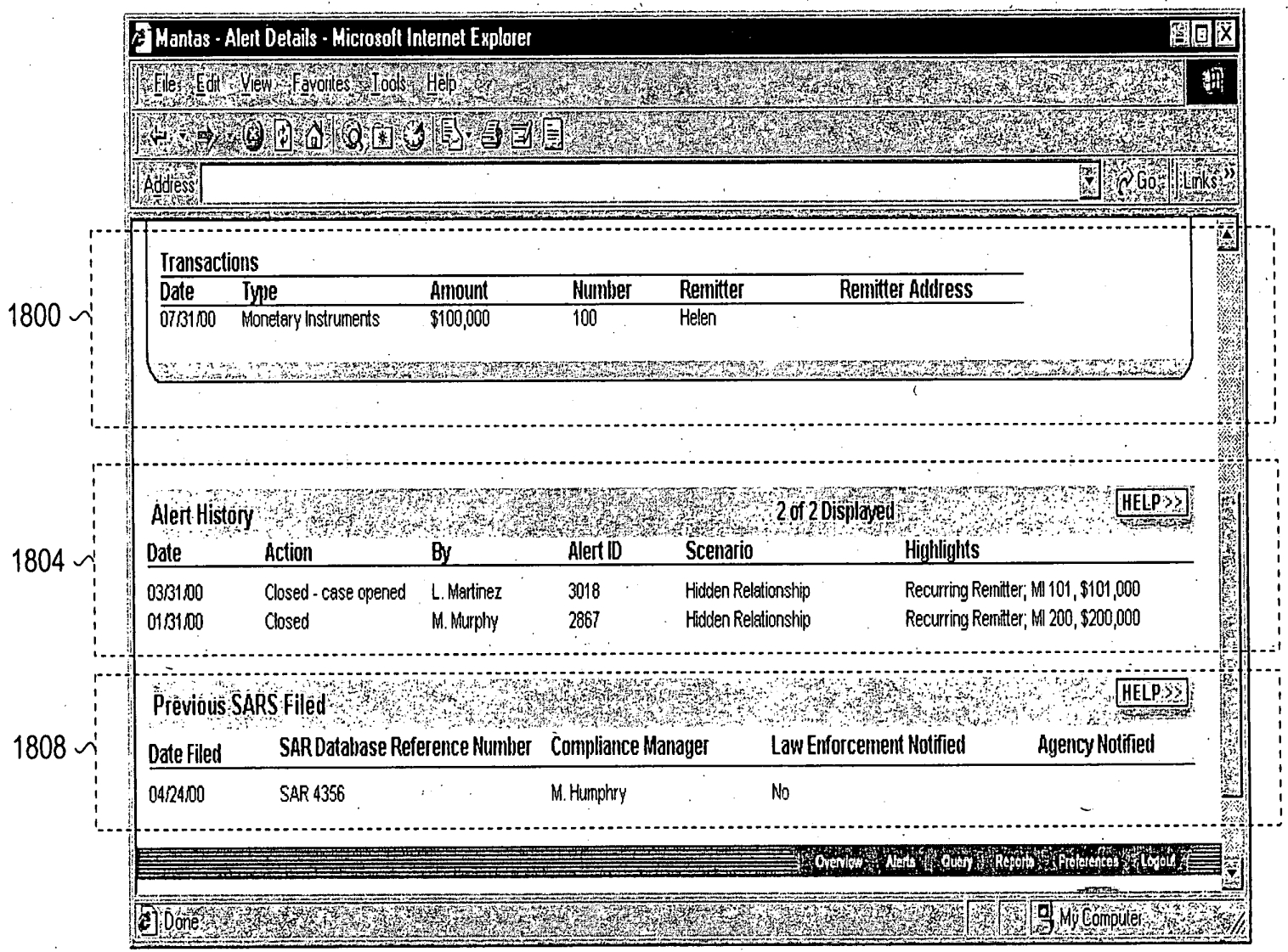

Mantas - Alert Details - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Address
Go
Links
1800
Transactions
Date Type Amount Number Remitter Remitter Address
07/31/00 Monetary Instruments $100,000 100 Helen
1804
Alert History
2 of 2 Displayed
HELP>>
Date Action By Alert ID Scenario Highlights
03/31/00 Closed - case opened L. Martinez 3018 Hidden Relationship Recurring Remitter; MI 101, $101,000
01/31/00 Closed M. Murphy 2867 Hidden Relationship Recurring Remitter; MI 200, $200,000
1808
Previous SARS Filed
HELP>>
Date Filed SAR Database Reference Number Compliance Manager Law Enforcement Notified Agency Notified
04/24/00 SAR 4356 M. Humphry No
Overview Alerts Query Reports Preferences Logout
Done
My Computer

FIG. 18

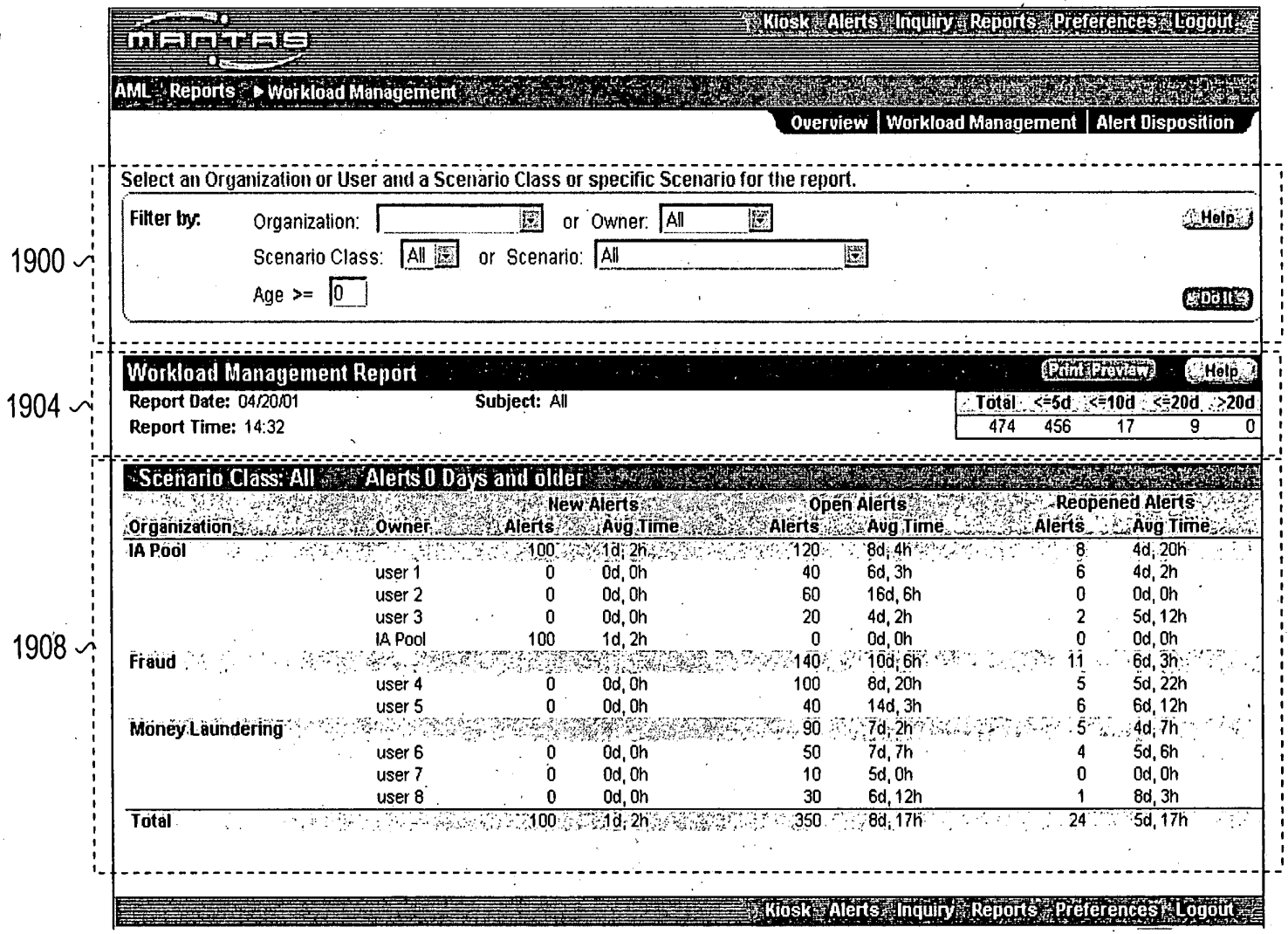

MANTAS
Kiosk Alerts Inquiry Reports Preferences Logout
AML Reports ▸ Workload Management
Overview | Workload Management | Alert Disposition
Select an Organization or User and a Scenario Class or specific Scenario for the report.
Filter by:
Organization:
or Owner: All
Help
Scenario Class: All
or Scenario: All
Age >= 0
Do It
1900
Workload Management Report
Print Preview
Help
Report Date: 04/20/01
Report Time: 14:32
Subject: All
Total <=5d <=10d <=20d >20d
474 456 17 9 0
1904
Scenario Class: All Alerts 0 Days and older
1908
Organization Owner New Alerts Alerts Avg Time Open Alerts Alerts Avg Time Reopened Alerts Alerts Avg Time
IA Pool 100 1d, 2h 120 8d, 4h 8 4d, 20h
user 1 0 0d, 0h 40 6d, 3h 6 4d, 2h
user 2 0 0d, 0h 60 16d, 6h 0 0d, 0h
user 3 0 0d, 0h 20 4d, 2h 2 5d, 12h
IA Pool 100 1d, 2h 0 0d, 0h 0 0d, 0h
Fraud 140 10d, 6h 11 6d, 3h
user 4 0 0d, 0h 100 8d, 20h 5 5d, 22h
user 5 0 0d, 0h 40 14d, 3h 6 6d, 12h
Money Laundering 90 7d, 2h 5 4d, 7h
user 6 0 0d, 0h 50 7d, 7h 4 5d, 6h
user 7 0 0d, 0h 10 5d, 0h 0 0d, 0h
user 8 0 0d, 0h 30 6d, 12h 1 8d, 3h
Total 100 1d, 2h 350 8d, 17h 24 5d, 17h
Kiosk Alerts Inquiry Reports Preferences Logout

FIG. 19

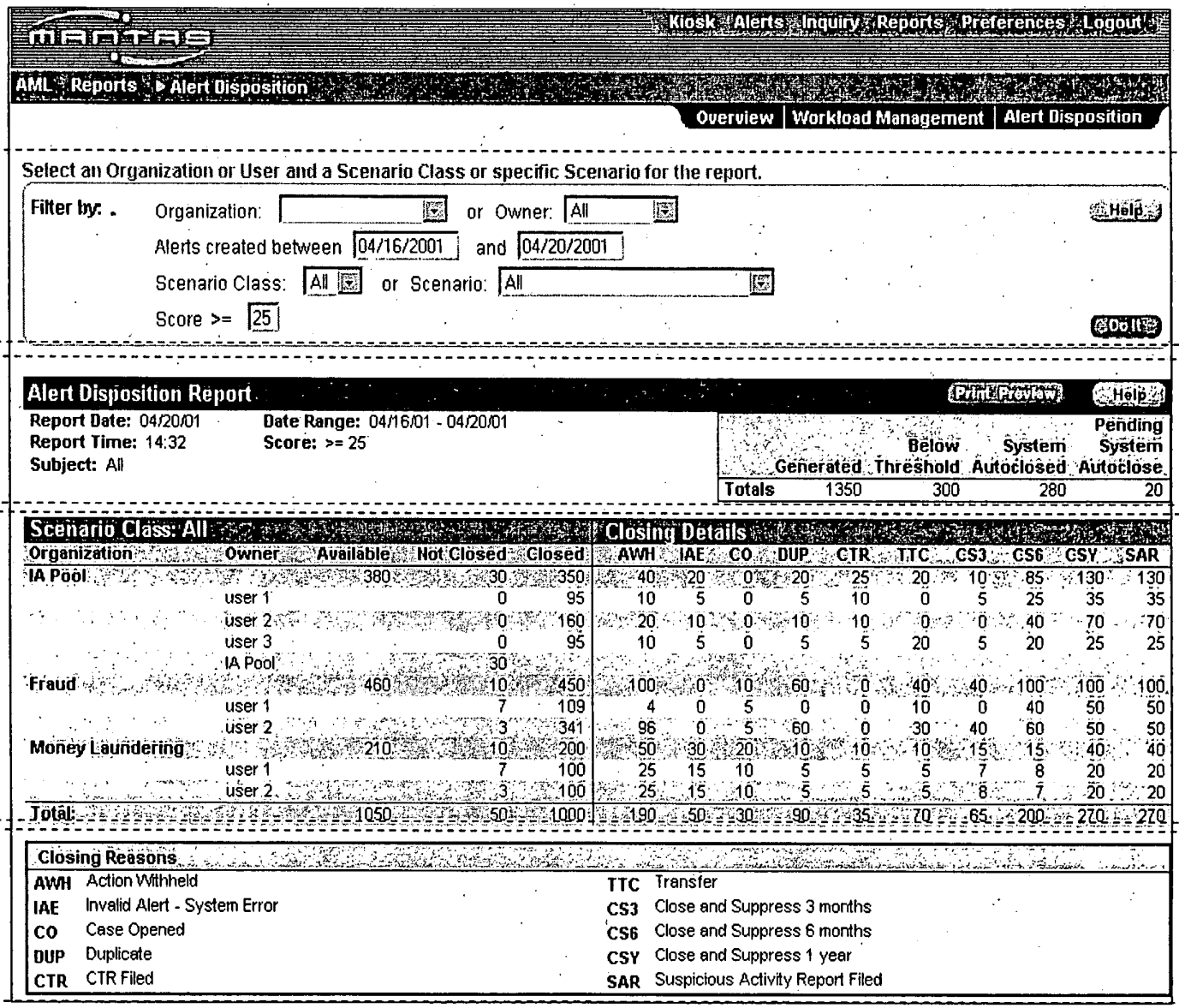

MANTAS
Kiosk Alerts Inquiry Reports Preferences Logout
AML Reports ▸ Alert Disposition
Overview | Workload Management | Alert Disposition
Select an Organization or User and a Scenario Class or specific Scenario for the report.
Filter by:
Organization:
or Owner: All
Help
Alerts created between 04/16/2001 and 04/20/2001
Scenario Class: All
or Scenario: All
Score >= 25
Go It
2000
2004
Alert Disposition Report
Print Preview
Help
Report Date: 04/20/01
Report Time: 14:32
Subject: All
Date Range: 04/16/01 - 04/20/01
Score: >= 25
Generated
Below Threshold
System Autoclosed
Pending System Autoclose
Totals 1350 300 280 20
2008
Scenario Class: All
Closing Details
Organization Owner Available Not Closed Closed AWH IAE CO DUP CTR TTC CS3 CS6 CSY SAR
IA Pool 380 30 350 40 20 0 20 25 20 10 85 130 130
user 1 0 95 10 5 0 5 10 0 5 25 35 35
user 2 0 160 20 10 0 10 10 0 0 40 70 70
user 3 0 95 10 5 0 5 5 20 5 20 25 25
IA Pool 30
Fraud 460 10 450 100 0 10 60 0 40 40 100 100 100
user 1 7 109 4 0 5 0 0 10 0 40 50 50
user 2 3 341 96 0 5 60 0 30 40 60 50 50
Money Laundering 210 10 200 50 30 20 10 10 10 15 15 40 40
user 1 7 100 25 15 10 5 5 5 7 8 20 20
user 2 3 100 25 15 10 5 5 5 8 7 20 20
Total: 1050 50 1000 190 50 30 90 35 70 65 200 270 270
2012
Closing Reasons
AWH Action Withheld
IAE Invalid Alert - System Error
CO Case Opened
DUP Duplicate
CTR CTR Filed
TTC Transfer
CS3 Close and Suppress 3 months
CS6 Close and Suppress 6 months
CSY Close and Suppress 1 year
SAR Suspicious Activity Report Filed

FIG. 20

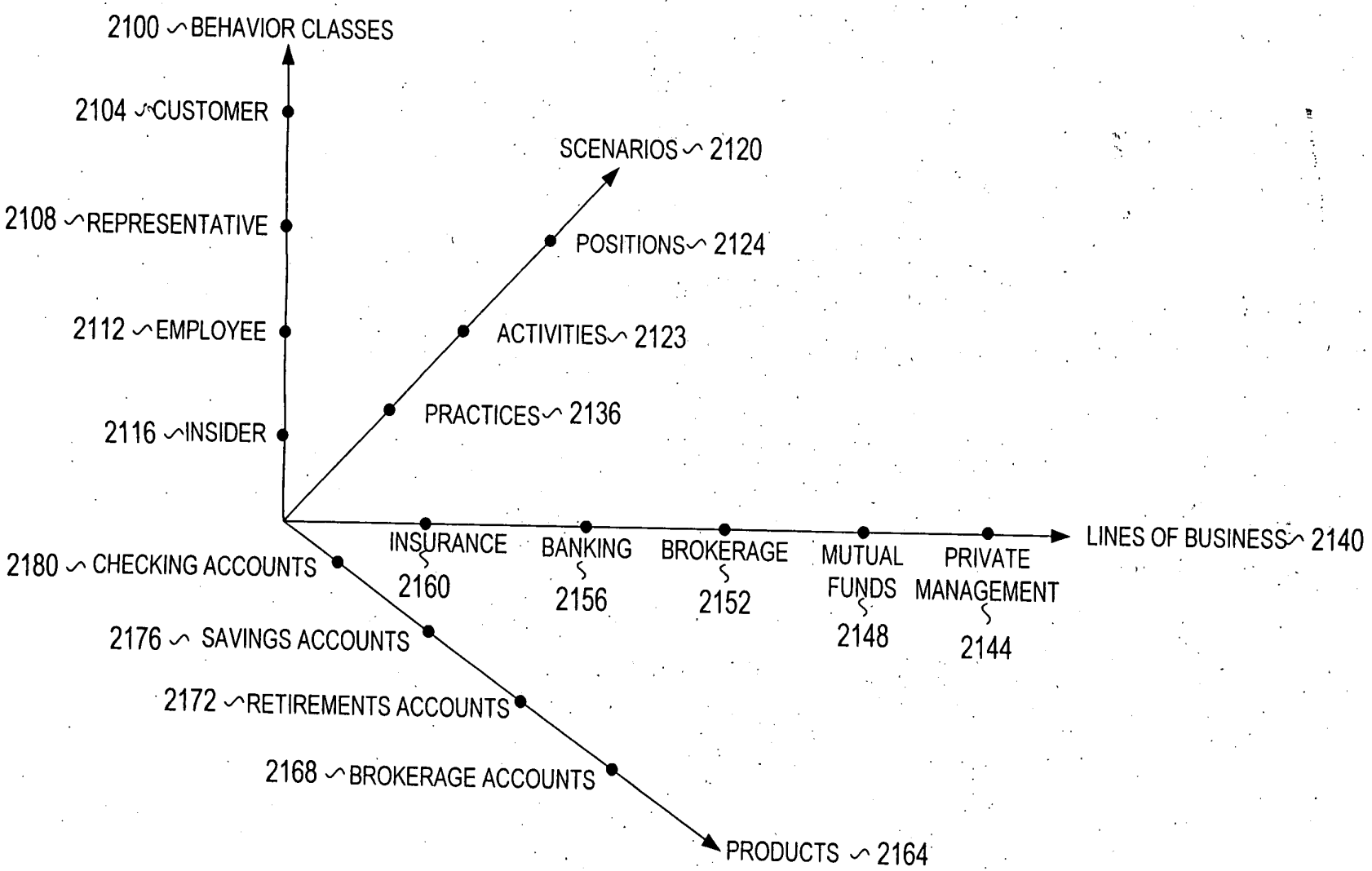

2100 BEHAVIOR CLASSES
2104 CUSTOMER
2108 REPRESENTATIVE
2112 EMPLOYEE
2116 INSIDER
SCENARIOS 2120
POSITIONS 2124
ACTIVITIES 2123
PRACTICES 2136
LINES OF BUSINESS 2140
INSURANCE 2160
BANKING 2156
BROKERAGE 2152
MUTUAL FUNDS 2148
PRIVATE MANAGEMENT 2144
2180 CHECKING ACCOUNTS
2176 SAVINGS ACCOUNTS
2172 RETIREMENTS ACCOUNTS
2168 BROKERAGE ACCOUNTS
PRODUCTS 2164

FIG. 21

Parameter	Description	Default	Min	Max
Conc Posn MVL	The minimum amount that must be concentrated in a single equity security to receive an alert.	$400K	$75K	$10M
Conc %	The percentage portfolio concentration in a single security required to receive an alert. This figure is computed by comparing market value of the holdings in the concentrated security to the total cash and security value.	80%	40%	100%
Equity %	The equity percentage at or below which an account can be considered for an alert.	40%	0%	90%
Accts on Margin	For household-level alerts, the minimum number of accounts in the household that must be trading on margin (i.e., have an equity percentage less than 100) and be concentrated in the same security as the household in order to receive an alert.	2	2	10
% Change	The percent change in the direction of interest that must occur for a situation to be considered significantly different from the previous month. If this occurs, an alert will be generated even if the account/household met the criteria during the previous month.	15%	0%	100%

FIG. 22

Parameter	Description	Default	Min	Max
Low-Pr Sec MVL	The minimum aggregate market value in low-priced equities required to receive an alert.	$400K	$75K	$10M
Low-Pr Sec Conc %	The percentage portfolio concentration in low-priced equities required to receive an alert. This figure is computed by comparing low-priced security MVL to the total cash and security value.	80%	10%	100%
% Change	The percent change in the direction of interest that must occur for a situation to be considered significantly different from the previous month. If this occurs, an alert will be generated even if the account/household met the criteria during the previous month.	15%	0%	100%

FIG. 23

Parameter	Description	Default	Min	Max
Equity Share Qty	The quantity threshold below which an equity order may be handled by an auto-execution system. To qualify for an alert, each order in a series must be for less than this threshold, and the cumulative quantity must be for more than this threshold.	2,001	2	100,000
Equity Time Limit	The total time span (in seconds) within which a series of equity orders must be entered to qualify for an alert.	30	2	18,000
Option Contract Qty	The quantity threshold below which an option order may be handled by an auto-execution system. To qualify for an alert, each order in a series must be for less than this threshold, and the cumulative quantity must be for more than this threshold.	21	2	10,000
Option Time Limit	The total time span (in seconds) within which a series of option orders must be entered to qualify for an alert.	15	2	18,000

FIG. 24

Parameter	Description	Default	Min	Max
Min Before Mkt Close	The period of time (in minutes) before the end of regular trading hours in which an order may be considered for a Marking the Close alert.	2	1	6
Posn / Trd Qty Ratio	The minimum position—expressed as a multiple of the end-of-market trade quantity—that must be held in a margin (type 2 or 6) account to be considered a possible situation of interest.	20	2	1,000
% Pts Over Mgn Maint	For the account with a substantial position in the security of interest, the maximum number of percentage points by which the account's ending equity percentage may exceed its maintenance requirement (normally 35%).	5%	1%	40%

FIG. 25

Parameter	Description	Default	Min	Max
Improper Short Trd #	The number of improper short sales an account must make over the course of one month to qualify for an alert.	3	1	100

FIG. 26

Parameter	Description	Default	Min	Max
Change from Market %	The percentage factor by which a possible extended-hours cross-trade in a security must deviate from both the recent closing price and the previous execution price for the security.	15%	1%	1,000%
Mkt Moving Trend #	The number of ensuing executions in the same price range as the cross-trade (or further away from the recent closing price) that will be interpreted as a market-moving trend. If such a trend occurs, an alert will not be generated on the cross-trade.	3	1	10,000
Similar Range %	The percent range around the cross-trade price within which ensuing trades will be considered "similarly priced." This is used to evaluate market trends—if enough trades have a similar price or are further from the closing price, a trend has occurred.	5	0	100

FIG. 27

Parameter	Description	Default	Min	Max
Act vs Exp Ratio	For a representative's activity in a particular security, the ratio of the actual versus expected number of unsolicited orders necessary to qualify for an alert.	4	2	100
Side of Market %	For a representative's activity in a particular security, the percentage of the customer orders that must be on one side of the market (either Buy or Sell) in order to qualify for an alert.	75%	60%	100%
Min Ords - Svc Tm	For representatives working in call centers or on service teams, the minimum number of orders that must be entered on one side of the market for a particular security in order to be considered for an alert.	20	4	100
Min Ords - Br Rep	For representatives working in branch offices, the minimum number of orders that must be entered on one side of the market for a particular security in order to be considered for an alert.	8	4	100
Min Accts - Svc Tm	For representatives working in call centers or on service teams, the minimum number of distinct customer accounts from which the representative must receive orders for a particular security in order to be considered for an alert.	10	1	100
Min Accts - Br Rep	For representatives working in branch offices, the minimum number of distinct customer accounts from which the representative must receive orders for a particular security in order to be considered for an alert.	4	1	100
Solicited Trades	The number of solicited orders that a representative must enter for a particular account to be considered a possible situation of interest. The representative must meet the criteria for solicited and unsolicited orders within the prescribed timeframe.	2	1	50
Unsolicited Trades	The number of unsolicited orders that a representative must enter for a particular account to be considered a possible situation of interest. The representative must meet the criteria for solicited and unsolicited orders within the prescribed timeframe.	2	1	50
Total Days	The total time span (in days) within which the representative must enter the solicited and unsolicited orders for a particular customer.	1	1	14

FIG.28

Parameter	Description	Default	Min	Max
Hrs b/t Trades	The maximum amount of time that may transpire between an employee entering a customer order and the employee placing a similar trade in his/her account. The time is expressed in market hours (i.e., 6.5 hours equals one business day).	13	0.1	13
Cust Eqty Shr Qt	The share quantity at or above which a customer's equity order can be considered for a shadowing alert. The customer trade must meet the minimum threshold in terms of share quantity or principal amount.	100	0	1M
Cust Eqty Prin Amt	The principal amount at or above which a customer's equity order can be considered for a shadowing alert. The customer trade must meet the minimum threshold in terms of share quantity or principal amount.	$2K	$0	$10M
Cust Optn Cntr Qt	The contract quantity at or above which a customer's option order can be considered for a shadowing alert. The customer trade must meet the minimum threshold in terms of quantity or principal amount.	0	0	10,000
Cust Optn Prin Amt	The principal amount at or above which a customer's option order can be considered for a shadowing alert. The customer trade must meet the minimum threshold in terms of quantity or principal amount.	$0	$0	$1M
Emp Eqty Shr Qt	The share quantity at or above which an employee's equity order can be considered for a shadowing alert. The employee trade must meet the minimum threshold in terms of share quantity or principal amount.	100	0	1M
Emp Eqty Prin Amt	The principal amount at or above which an employee's equity order can be considered for a shadowing alert. The employee trade must meet the minimum threshold in terms of share quantity or principal amount.	$2K	$0	$10M
Emp Optn Cntr Qt	The contract quantity at or above which an employee's option order can be considered for a shadowing alert. The employee trade must meet the minimum threshold in terms of quantity or principal amount.	0	0	10,000
Emp Optn Prin Amt	The principal amount at or above which an employee's option order can be considered for a shadowing alert. The employee trade must meet the minimum threshold in terms of quantity or principal amount.	$0	$0	$1M
Hrs b/t Trades - CC	The maximum amount of time between a control customer trade (involving the security in which he/she has a controlling role) and an employee order for a similar security. The time is expressed in market hours (i.e., 6.5 hours equals one business day).	13	0.1	13

Continued on 29B

FIG.29A

Continued from 29A

Parameter	Description	Default	Min	Max
Ctrl Cust Eq Shr Qt	The minimum share quantity required for a control customer's order (involving the security in which he/she has a controlling role) to be considered a candidate for a shadowing alert. The trade can also qualify if it meets the Prin threshold.	5000	0	1M
Ctrl Cust Eq Prin	The minimum principal amount required for a control customer's order (involving the security in which he/she has a controlling role) to be considered a candidate for a shadowing alert. The trade can also qualify if it meets the Shr Qt threshold.	$100K	$0	$10M
Ctrl Cust Op Cntr Qt	The minimum contract quantity required for a control customer's option order (involving the security in which he/she has a controlling role) to be considered a candidate for a shadowing alert. The trade can also qualify if it meets the Prin threshold.	50	0	10,000
Ctrl Cust Op Prin	The minimum principal amount required for a control customer's option order (involving the security in which he/she has a controlling role) to be considered a candidate for a shadowing alert. The trade can also qualify if it meets the Cntr Qt threshold.	$50K	$0	$1M
Emp Eq Shr Qt - CC	For alerts involving the shadowing of a control customer order not entered by the employee, the minimum share quantity required for an employee's equity order to be considered in an alert. The trade can also qualify if it meets the Prin threshold.	100	0	1M
Emp Eq Prin – CC	For alerts involving the shadowing of a control customer order not entered by the employee, the principal amount required for an employee's equity order to be considered in an alert. The trade can also qualify if it meets the Shr Qt threshold.	$2K	$0	$10M
Emp Op Cntr Qt - CC	For alerts involving the shadowing of a control customer order not entered by the employee, the minimum contract quantity required for an employee's option order to be considered in an alert. The trade can also qualify if it meets the Prin Amt threshold.	0	0	10,000
Emp Op Prin – CC	For alerts involving the shadowing of a control customer order not entered by the employee, the principal amount required for an employee's option order to be considered in an alert. The trade can also qualify if it meets the Cntr Qt threshold.	$0	$0	$1M

FIG.29B

Parameter	Description	Default	Min	Max
Seconds b/t Orders	The maximum amount of time that may transpire between an employee placing a trade in his/her account ant the employee entering a customer or firm account order for a similar security. The time is expressed in seconds. The orders must occur during the same business day.	900	1	23,400
Cust Eq Ord Shr Qty	The share quantity at or above which a customer or proprietary account equity order may be considered a candidate for front-running.	500	0	1,000,000
Cust Op Ord Cntr Qty	The contract quantity at or above which a customer or proprietary account option order may be considered a candidate for front-running.	5	0	100,000
Cust Bd Ord Prin Amt	The principal amount at or above which a customer or proprietary account bond order may be considered a candidate for front-running.	$25K	$0	$10M
Cust Ot Ord Prin Amt	The principal amount at or above which a customer or proprietary account order for an "other" security type (i.e., one that is not classified as an equity, option, bond, mutual fund, money market, or CD) may be considered a candidate for front-running.	$25K	$0	$10M
Emp Eq Ord Shr Qty	The share quantity at or above which an employee's equity order may be considered in a front-running alert.	100	0	1,000,000
Emp Op Ord Cntr Qty	The contract quantity at or above which an employee's option order may be considered in a front-running alert.	1	0	100,000
Emp Bd Ord Prin Amt	The principal amount at or above which an employee's bond order may be considered in a front-running alert.	$5K	$0	$10M
Emp Ot Ord Prin Amt	The principal amount at or above which an employee's order for an "other" security type (i.e., one that is not classified as an equity, option, bond, mutual fund, money market, or CD) may be considered in a front-running alert.	$5K	$0	$10M

FIG. 30

Parameter	Description	Default	Min	Max
Time Ahead Large Ord	The amount of time (in seconds) within which an employee's order must precede a large order to be considered a possible situation of interest.	360	1	3,600
Time After Large Ord	The amount of time (in seconds) following a large order within which an employee must place a trade opposite to the one he/she made ahead of the large order. All orders involved in the possible front-running situation must take place on the same business day.	7,200	1	2,400
Employee Profit	The net profit that the employee must realize from the trades surrounding the large order.	$100	($10K)	$10K
Low Vol Eq Shr Qty	For non-heavily-traded equities, the share quantity at or above which an order is considered large enough to be a candidate for front-running. The order must meet the minimum threshold in terms of either share quantity or principal amount.	5,000	2,500	1,000,000
Low Vol Eq Prin Amt	For non-heavily-traded equities, the principal amount at or above which an order is considered large enough to be a candidate for front-running. The order must meet the minimum threshold in terms of either share quantity or principal amount.	$50K	$25K	$10M
High Vol Eq Shr Qty	For heavily traded equities, the share quantity at or above which an order is considered large enough to be a candidate for front-running. The order must meet the minimum threshold in terms of either share quantity or principal amount.	25,000	2,500	1,000,000
High Vol Eq Prin Amt	For heavily traded equities, the principal amount at or above which an order is considered large enough to be a candidate for front-running. The order must meet the minimum threshold in terms of either share quantity or principal amount.	$250K	$25K	$10M
Option Contract Qty	The contract quantity at or above which an option order is considered large enough to be a candidate for front-running.	5	1	100,000
Bond Prin Amt	The principal amount at or above which a bond order is considered large enough to be a candidate for front-running.	$50K	$25K	$10M

FIG. 31

Parameter	Description	Default	Min	Max
% Security Pr Change	The percentage change relative to the previous day's close that must be observed for a security to be a candidate for an insider trading alert.	15%	10%	1,000%
% Pr Mvmt Attained	The percentage of the price differential —computed by comparing the current closing price to the previous day's closing price—that an employee must manage to attain to be considered for an insider trading alert.	50%	100%	0%

FIG. 32

Parameter	Description	Default	Min	Max
% Orig Sec Sold	For the mutual fund(s) the customer switched out of, the percentage of the buys during the past 6 months that were sold as part of the switch trade(s).	25%	1%	100%

FIG. 33

Parameter	Description	Default	Min	Max
Hot IPO Defn - $ Chg	The absolute price increase— measured from the initial trading price to the closing price—at or above which an IPO will be considered "hot." An IPO can qualify as "hot" by meeting the absolute or percentage threshold.	$2	$0	$100
Hot IPO Defn - % Chg	The percentage price increase—measured from the initial trading price to the closing price—at or above which an IPO will be considered "hot." An IPO can qualify as "hot" by meeting the absolute or percentage threshold.	10%	1%	1,000%
% Alloc to Sub - Abs	The percentage allotment of IPO shares to a single subaccount that will automatically be considered disproportionate, regardless of how the subaccount's allocation compares to its expected allotment.	25%	1%	100%
% Alloc to Sub - Min	The percentage allotment of IPO shares to a single subaccount that may be considered disproportionate, if the subaccount's allocation also exceeds its expected allotment by more than a specified ratio.	10%	1%	100%
Ratio Act vs Exp Qty	The allocation of IPO shares to a subaccount—measured as a multiple of its expected allotment—that may be considered disproportionate, if the percentage of shares allocated to the subaccount also exceeds a minimum parameter. The expected allocation is based on the size of the subaccount relative to the total assets managed by the IA.	5	1	100

FIG. 34

Parameter	Description	Default	Min	Max
# Fav/Unfav Day Trds	The minimum number of "winning" or "losing" day-trade block allocations (i.e., the concurrent allotment of a buy and a sell) that a subaccount must receive over the course of a month to establish a pattern of favorable or unfavorable treatment by the IA.	4	1	100
% Day Trds Same Side	The percentage of the "winning" or "losing" day-trade block trade allocations that must have the end result (i.e., must be favorable or unfavorable) for the subaccount involved to establish a pattern of unequal treatment by the IA.	80%	50%	100%
Net P&L Day Trds - $	The minimum net amount a subaccount must gain or lose as a result of day-trade block trade allocations to be considered for an alert.	$1K	$1	$1M
Ratio Act/Exp DT P&L	The level of gains or losses from block day-trades for a subaccount— measured as a multiple of its expected gain/loss—that may be of interest. The expected P&L is based on the size of the subaccount relative to the total assets managed by the IA.	4	0	100
# Fav/Unfav Trds	The minimum number of "winning" or "losing" block trade allocations that a subaccount must receive over the course of a month to establish a pattern of favorable or unfavorable treatment by the IA.	8	1	100
% Trds Same Side	The percentage of the "winning" or "losing" block trade allocations that must have the end result (i.e., must be favorable or unfavorable) for the subaccount involved to establish a pattern of unequal treatment by the IA.	80%	50%	100%
Net P&L Trds - $	The minimum net amount a subaccount must gain or lose as a result of block trade allocations to be considered for an alert.	$1K	$1	$1M
Ratio Act/Exp P&L	The level of gains or losses from block trades for a subaccount—measured as a multiple of its expected gain/loss— that may be of interest. The expected P&L is based on the size of the subaccount relative to the total assets managed by the IA.	4	0	100

FIG. 35

Parameter	Description	Default	Min	Max
% Conc Level	The percentage of assets that must be held in a single equity position for an account to be classified as "concentrated."	50%	1%	100%
% Subs w/Conc Posns	The percentage of IA subaccounts that must have a concentrated position to create an IA-level alert.	50%	1%	100%
# HHs w/Conc Posns	The number of distinct household-security combinations (among the subaccounts for an IA) that must have a concentrated position to create an IA-level alert.	5	1	1,000

FIG. 36